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THE CREATOR SPIRIT

THE CREATOR SPIRIT

A Survey of Christian Doctrine in the light of Biology, Psychology and Mysticism

THE HULSEAN LECTURES, CAMBRIDGE, 1926–7
THE NOBLE LECTURES, HARVARD, 1926

BY

CHARLES E. RAVEN, D.D.

CANON OF LIVERPOOL AND CHAPLAIN TO THE KING

WITH AN APPENDIX ON

BIOCHEMISTRY AND MENTAL PHENOMENA

BY

JOSEPH NEEDHAM, M.A., PH.D.

FELLOW OF GONVILLE AND CAIUS COLLEGE, CAMBRIDGE

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PREFACE

THE purpose of this book is simple, if its scope is ambitious. It is an attempt to show that the work of the Holy Spirit is to be traced in the creative as well as the inspirational energies of the Godhead; that creation, incarnation and inspiration reveal the same eternal values; that biology and psychology bear witness to love rather than to will. It therefore deals with what must be for the Christian a fundamental task, the effort to formulate and defend a Christ-centred view of the Universe in such wise as to heal the breach between science and religion.

It is obviously an undertaking far beyond my powers, an undertaking upon which the best that the Church can give should be concentrated. Its importance is evident to all who realise the disastrous effects of the divorce between the old religion and the new learning. Civilisation is perishing unless that divorce can be annulled, unless the spiritual aspirations of man be redeemed from the bondage of obscurantism and reunited with the best thought of the age, unless science be set free from its association with a deterministic materialism and enabled to serve the highest welfare of humanity. To state the urgency of the issue is to confess one's arrogance in essaying it. Yet perhaps those who have been humbled, as I have been, by constant failure, had better fail again in a great venture than try to win success in a small one. And there are not so very many who are in outlook scientists, albeit from force of circumstances amateurishly, and by training students of theology, who have won their way from a materialistic biology to a faith in Christ, and who hold that faith

not as an infallible creed accepted by the surrender of reason, but because it satisfies their spiritual and intellectual needs. Upon such, however inadequate they may be, rests the responsibility of giving an account of that by which they live.

My obligations to a great number of leaders in research and thought are evident from every page that follows. Chief among them is Professor Lloyd Morgan, to whose books and personal kindness I owe a debt of warm gratitude. Few bequests have been of greater value than that which has given us the series of Gifford Lectures; and if I single out *Life, Mind and Spirit* as to me the most stimulating of them all, this does not diminish my obligation to other lecturers, and especially to Professor Pringle Pattison, Sir Henry Jones, Professor Alexander and Professor Sorley, or to great teachers and thinkers like Dr. Ward, Professor Pratt, Professor Hocking and Professor Whitehead. Among personal friends to whom I am indebted for help on particular points my thanks are specially due to Dr. J. Needham, who has contributed an appendix on a matter of difficulty and peculiar importance, to Dr. G. T. Bennett, Mr. T. A. Coward, the late Dr. J. G. Adami, Sir Frederick Hopkins, Mrs. Stuart Moore, Miss Beatrice Hankey, Mrs. Andrew MacIver, Dr. P. Dearmer and my brother, the Rev. E. E. Raven. For the views expressed in the following pages I must accept sole responsibility; but to one who is no longer in close touch with the life of a University the generous assistance and encouragement of those whose lives are devoted to study and research have been of the highest value. And with them I would thank my colleagues of the Liverpool Chapter, and especially Canon F. W. Dwelly and my bishop, Dr. David; the electors to the Hulsean lectureship and my friends in Cambridge, and particularly the Master of Downing College and Miss Seward; the trustees of the William Belden Noble lectures, and particularly Professor E. C. Moore and Mrs. Noble; my hosts at

Harvard, Dean and Mrs. Washburn, and Mr. and Mrs. John F. Moors, and the very many whose kindness made my first visit to the United States so delightful an experience.

My lectures at Cambridge were based upon the first four, at Harvard upon the last four chapters of the present book. It is by the courtesy of the authorities of the Universities that both series are here published together. For one who was for many years in residence in John Harvard's own College, Emmanuel, it is a happy event that this book should have been produced at the invitation of the two great Societies united by his life.

CHARLES E. RAVEN.

LIVERPOOL,
February, 1927.

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SYNOPSIS

(A) Purpose and Scope of the Survey

Chap. I. Through the admitted neglect of their doctrine of the Holy Spirit Christians have too often confined the sphere of His operation within the limits of the ecclesiastical system, and in consequence have failed to interpret Creation as proceeding from the same source and revealing the same values as Redemption and Inspiration : they relate the Spirit to the Son, not to the Father.

Further, modern Science has wholly altered our conception of the natural order, and shaken our belief in it as a revelation of God. Yet to that belief Christians are committed not only by the need for a coherent philosophy, but by the example of Jesus, the teaching of Scripture and the true meaning of the Nicene Creed.

A survey of the problems of biology and psychology, based upon the conviction that truth cannot be different for science and for religion, would lead to a larger concept of God and of Jesus, a worthier doctrine of the Spirit, and a clearer apprehension of Christianity and of the Church.

(B) Biological Aspect of the Survey

Chap. II. The cleavage between science and religion has been tragic but intelligible. Darwin's theory of evolution was given a strongly determinist and materialistic bent by Weismann, Haeckel and the Mendelians. In particular the denial of all inheritance of acquired characteristics overthrew belief in the influence of individual effort upon the course of evolution, and had serious consequences both for ethics and for theology. Few recent developments are more important than the break-down of rigid Neo-Darwinianism.

Chap. III. The rejection of materialistic determinism has led to a variety of alternative interpretations of the development of the natural order. The most popular of these among Christians are the several forms of Vitalism or Animism. These are open to serious if not unanswerable objections from

the standpoint of biology, of comparative psychology and of philosophy. The scheme propounded by the advocates of the principle of Emergence not only covers the facts, but is consistent with a theistic view of Creation as revealing the operation of the Spirit and the progressive attainment of communion with Him.

Chap. IV. If the creative process can be thus interpreted, we must study it fully and frankly to discover the values inherent in it, guarding against the tendency to select what flatters our prejudices, and to treat the universe rather as the instrument of a will operating upon it from without, than as the manifestation of an immanent reality. The natural order makes upon us all a definite impact. It appeals first to our sense of wonder by its sheer artistry; then to our curiosity by its order and design; then to our moral sense by its evidence of effort and growth, suffering and achievement culminating in freedom and sympathy. The aesthetic, intellectual and moral values thus disclosed by it are in harmony with the contention that the Spirit of God is the " Giver of Life."

(C) Psychological Aspect of the Survey

Chap. V. Psychology like biology has given rise to results challenging to Christianity. As popularised these are open to severe criticism. The emphasis upon the subconscious and the analysis of personality into separate instincts have been so stressed as to misrepresent the wholeness of the normal self. Yet the New School, for all its defects, draws attention to the need for unification and to the influence of faith, and in these respects agrees with the findings of greater thinkers. The individual attains integrated and fully developed personality in proportion to his devotion to a dominant ideal: the only adequate ideal is the union with the eternal Spirit which is the supreme experience of humanity.

Chap. VI. Full personal development involves unself-conscious concentration and liberates unrealised resources of power. The individual experiences such power at rare moments, and cannot achieve it fully in isolation. For from the first he develops social relationships and group-loyalties; and where these are in conflict, his interests are distracted and his power inhibited. Hence groups often though not inevitably display qualities lower than those of their component members. A true group-mind emerges when the members are united by sympathy and share a common motive. The nature of this sympathy is akin to thought-transference and telepathy : it is not fully explicable in terms of specialised

sense-perception, though it has a physical aspect and can be interpreted scientifically. A group thus constituted and inspired is of one heart and of one mind, and its power vastly exceeds that of the several units belonging to it.

Chap. VII. Individual and group alike develop only under the inspiration of a dominant ideal; and this for both is the union with the eternal, commonly described as mystic experience. Such mysticism is normal and universal, the core of all religion, the acknowledgment of independently existent value, the apprehension of the reality beyond phenomena. It is neither pathological nor due to suggestion; nor is it a matter of emotion. Aesthetic, intellectual and moral elements enter into it, and are transcended by it. At its highest it is not passive, but active and energising, an enrichment of feeling, intellect and will, describable only in terms of union with Life, with the Spirit of God. Jesus reveals it in its perfect development: Pentecost displays its manifestation in a group. The unity of mankind in the sharing of this experience would seem to be the goal of the whole evolutionary process.

(D) Practical Corollaries of the Survey

Chap. VIII. If religion is essentially union with the Spirit, how can this experience be interpreted in terms of theology or of organisation? Such interpretation is necessary, but full of difficulty and of danger. Christian history shows an evolution from simple to complex, and warns us of the liability to regression, when what is secondary becomes so rigid as to inhibit vitality.

We can test the validity of our interpretation by its power to develop aesthetic, intellectual and moral values in the individual and in the community; and should do so with severity towards ourselves and charity towards others. From this testing a decision emerges and must be obeyed.

If Christians are agreed as to the reality and primacy of spiritual experience, and if they respond to the ideal of a world-wide community, they will achieve unity and power.

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THE CREATOR SPIRIT

CHAPTER I

THE SPIRIT AND THE GODHEAD

It is a commonplace of theological and religious discussion that the doctrine of the Holy Spirit and the Church's faith in Him have long been the most obscure elements in Christian thought and practice. If we are not quite in the position of the group that St. Paul found at Ephesus, who "had not so much as heard whether there be any Holy Ghost," [1] at least there is amongst us grave uncertainty as to His Person and Work. The confused metaphors of popular devotion, with its medley of doves and flames and winds and still small voices, the artificial efforts to discriminate between His sevenfold gift, the uncertainty as to the covenanted and uncovenanted channels of His operation, and the general inability to distinguish between Him and the Indwelling Christ are symptomatic of the perplexity of our preaching. And anyone who has examined candidates for Ordination on the subject will realise that one very seldom finds anything beyond a few ill-assorted texts, the clauses in the Creeds, and an insistence that He proceeds "from the Father and the Son"—the latter a conclusion which seems to carry no corollaries. It is probably not too much to assert that the beliefs of most Church-people either confine His operations to certain definite and rather mechanical "means of grace," to the laying-on of hands, the consecration of the elements, and the answering of prayer,

[1] Acts xix. 2.

or associate Him vaguely with " every virtue we possess and every conquest won " and with particular moods of suggestibility and fellowship. That the Prayer-book draws attention rather to the Seven Spirits of the Old Testament than to the " fruit of the Spirit " described by St. Paul, and that for us the epithet " Holy," which in Scripture is more significant than the colourless word " Spirit," has become a mere title, imply a neglect of the ethical values associated with Him which, if recovered, might bring to us a more vital understanding. If when we pray " Take not Thy Holy Spirit from us," we could substitute on occasion " Take not from us the Spirit of Love and Joy and Peace," or even the " Impulse towards Holiness," we should be reminding ourselves that our faith in Him has a moral as well as a metaphysical content, and bringing into our petitions a contact with life which they sometimes lack.

And the student of theology knows that our uncertainty is no new thing, and can trace to the history of doctrinal ideas in the formative period of the early age some at least of its main causes. It is, indeed, one of the chief defects of the great patristic epoch, that, having inherited a grand tradition of the Spirit, they were so little able to devote thought to the investigation of His Nature and to the formulation of their faith in Him. The Apostolic Age not only throbs with spiritual power, but is constant in its witness to the source of that power in the living Spirit of God, the Spirit of Christ, the Spirit of holiness. The experience and the testimony are less evident in the second century, though, as Dr. Swete's admirable catena of passages [1] proves, there is no lack of continuity in the Church's faith. But in the manifold intellectual activities of Christian apologists and scholars there was singularly little attempt made to expound or even to discuss His place in the divine economy. It is an exaggeration to say that He is a mere name; but there is in all patristic

[1] *The Holy Spirit in the Ancient Church.*

literature a conspicuous absence of any large and clear conception of Him, and until the middle of the fourth century, when study had already begun to decline, the greatest hesitation as to His relation to the Godhead or His function in the world.

Apart from the general fact that the scholars of the Early Church were inevitably pre-occupied with the problem of the Person of Christ, there were two special reasons which militated against an adequate treatment of the Holy Spirit. In the first place, the term Logos, which formed the keystone of the arch of early theology and gave to the Church a stability against educated paganism and the support of Old Testament authority,[1] when applied, as in Justin and Clement, to the Second Person of the Trinity, left little room for the attribution of vital characteristics to the Third. The Logos was not only incarnate in Jesus, but was the creative Word of God, the Reason revealed in the universe, the origin of prophetic utterance, and the rational soul in mankind; and thus absorbed all the energies of immanent Deity. The Father tended to become simply the remote ineffable source from Whom the Logos proceeded, the Spirit simply the Captain of the heavenly host. There was a certain justice in the complaint of the Monarchians that the champions of the Logos-doctrine were in effect ditheists. Even so great a doctor as Clement, who, more perhaps than any other, saw and proclaimed the majestic grandeur and scope of the divine activity, ascribes the whole process to the Educative Word. And Origen, supreme alike in speculative daring and in massive scholarship, admits uncertainty when he comes to deal with the Spirit, and appears to confine His operations to the saints. Indeed if in Creation, Incarnation and Inspiration the sole agent was the Son, it was difficult to give any real value to the traditional faith in the Holy Ghost.

[1] Logos had links with Platonism and Stoicism, and with the Memra of the Hebrews.

And along with this weakness among the thinkers of the East was another influence bearing upon the more practical churchmen of the West. The Montanist movement, that fascinating prototype of Protestant revivals, though Phrygian in origin, had come early to Rome and had gained large importance from its convert Tertullian. How far Montanus was a simple enthusiast exhibiting the ecstatic utterance of the early seers or the speakers with tongues; how far he definitely proclaimed himself an incarnation of the Paraclete and the herald of the reign of the Spirit; how far his work was a deliberate protest against formal ecclesiasticism and the restriction of the liberty of prophesying, the evidence does not warrant us in deciding. But the effect of his condemnation was certainly to give a deathblow to the practice of ecstasy, to signalise the transformation of the spontaneous vitality of the first century[1] into the ecclesiasticism of an organised religion, and to confirm belief in the unique inspiration of Scripture and of the ordered ministry. It prejudiced Christians against any attempt to look for the work of the Holy Spirit outside the recognised channels of Bible and Church. Henceforward the tendency to identify the gifts of the Spirit with the ordinances of the ecclesiastical system becomes overwhelmingly strong, and when combined with the difficulty of finding a place for Him elsewhere, almost universal. Recent theology of a Catholic type shows that the same limitation is still usual.[2]

This identification of the sphere of the Spirit with the visible Church [3] naturally leads to a confining of His work to the sacramental system of " covenanted grace."

[1] For the contrast between them, cf. below, pp. 255–8.

[2] *E.g.* Gore, *The Holy Spirit and the Church.*

[3] Throughout this book Church, unless definitely qualified, represents the whole company of Christians organised in their several denominations. The Lambeth Appeal called this the " Great Church " and regarded it as a future possibility: to me it is a present fact: *ubi Christus, ibi ecclesia.*

A narrow interpretation is placed upon formulae already sufficiently rigid, like the Roman *extra ecclesiam nulla salus* or the Anglican " Works done before the grace of Christ and the Inspiration of his Spirit have the nature of sin." Such restriction was, in fact, justified neither by the Scriptures nor by the Creeds; and the acknowledgment that there may be " uncovenanted mercies " might in consequence be made. But, generally speaking, there was, and still is among Catholic churchmen, the greatest unwillingness to regard the Spirit as in any sense " free." He is linked up closely with the work of the Incarnate, and His Mission is to continue that work through institutional channels.

Two very grave difficulties are involved in any such doctrine. In the first place, it conflicts with the evidence of the multitude of saintly Christians who have never received baptism or any recognised sacrament and in whom it would be the unforgivable sin to deny the fruit and therefore the presence of the Holy Spirit. Exclusive insistence on particular ordinances has been difficult to maintain, except for the spiritually blind, since the days of George Fox; and it is certainly desirable that, in view of his followers, we should set our whole concept of the Spirit in a wider frame. And secondly, for those who take the limited view there is great difficulty in separating between the experience of the Spirit and of the Indwelling Christ. Those who have a vivid sense of the reality of Christ's presence with them can hardly find a place in their thought for " another Comforter " : Christ and the Spirit of Christ seem synonyms. To many this may appear a trifle : does it matter by what name we describe Him with whom we are in communion? But for those whose Trinitarianism is of the common tritheistic character or who desire, as the Early Church did, to pay reverence to the Spirit, it is a serious perplexity. Stated in wider terms, it amounts to a confusion between Redemption as accomplished by the Incarnate and its continuance in

Inspiration; and often leads to a separation of the Second and Third Persons of the Trinity from the First. On both these grounds the restrictive interpretation fails to satisfy. Its weakness could and should be recognised, and met by boldly re-asserting the doctrine of the Dual Procession, by associating the Holy Spirit not only with the redemptive work of the Son, but with the creative activity of the Father. We profess belief in " the Lord, the Giver of Life," in the Spirit of God who in the beginning " moved upon the face of the waters," [1] who " made " Job [2] and " filled " Bezaleel [3] and " came upon " Saul [4]: we have much to gain if we can give reality to our profession.

It is curious, but perhaps not unnatural, that if we have neglected our doctrine of the Holy Spirit we have also, and not less markedly, neglected the manifestation of God in His creation. There has been, ever since the dawn of the ascetic movement in the dark days of the fourth century, a general tendency [5] in Christian thought to regard nature and the natural order, if not as inherently evil, at least as spiritually meaningless, a mere stage on which the divine drama of regeneration was to be played or even a hostile environment from which men were to be set free. The Catholic anchorite, to whom natural beauty was a snare of the devil, and his Puritan brother, for whom the world was at best a vale of tears, join hands here. The revolt against the wider charity and broader scope of the great Alexandrians was largely due not only to ecclesiastical narrowness, but to a sheer dread of the physical. St. Augustine, who never quite threw off the Manicheism of his younger days, set the stamp of his authority upon a veiled dualism of spirit and matter; and often seems to regard not only man, but the material universe as a

[1] Gen. i. 2. [2] Job xxxiii. 4.
[3] Exod. xxxi. 3. [4] 1 Sam. x. 10.
[5] Such tendency had, of course, been present ever since apostolic times in the Gnostic sects.

massa perditionis, mere fuel for an ultimate burning. The line between the natural and the supernatural was drawn so hard and clear as to seem the frontier between irreconcilable antagonists. God was banished from His world, save at moments when He might assert His mastery by overruling its native waywardness. Catholic ecclesiasticism and Protestant otherworldliness alike strove to extol religion and sanctify particular ordinances by secularising and denouncing the common things of common life. And here again recent theology shows signs that the tendency is still all too frequently followed.

It should not be necessary now, any more than it was when we were considering the Spirit and the Church, to point out the element of truth in this isolation of the sacred from the profane. Worldliness in the fourth century and at all times is a peril deadly beyond all others to human welfare; and Christians striving against it might well take the easy course of denouncing the world itself as well as its worldly inhabitants. We may understand how they came to call common things unclean and became exclusive and puritan. But because worldliness is wrong, otherworldliness is not necessarily right. The doctrine of the " golden mean " may well be used to cloak compromise and insipidity : in fact, the way to the mountain-tops of life lies over an edge with a sharp drop to right and left, an adventure for the high-hearted in sunshine and comradeship, often visited by mist and storm, and always perilous and full of terrors for the lonely.

Asceticism and even the denunciation of the material world as wholly evil are tendencies which have had a long and in many ways an honourable history in religion. They represent the failure to " win through love's labour to love's repose." The child accepts his surroundings unquestioning and with joy : life is simple and bright-coloured : faith in the goodness of things is hard to quench, and for most of us is accepted freely.

We live unclouded by experience and unhampered by knowledge; and some of us never grow up, keeping a religion of cheerfulness which easily ceases to be a religion at all. With the stress and turmoil of adolescence most of us discover tragedy, conflicts within and wickedness without; and pessimism, the intellectual pessimism of those who are still young and gay, takes the place of hope. Many of us suffer horribly, as the bitterness of the world's woe racks our nerves and breaks our faith. Some take refuge in cynicism, hardening their hearts and sharpening their wits against the pain of living. Many never recover an acceptance of the world, and either renounce the struggle for a meaning behind the confusion, or seek it in a cloistered and exclusive virtue, becoming in the process either indifferent or puritanical. Those who themselves suffer, and learn by sympathy and mental effort, can win their way to a faith as confident as the child's and far more secure, a faith that has faced the facts and shared the pains and wrung from life the mystery of its laughter and its tears. It is plain that Jesus thus saw life and accepted it, knowing to the full its pathos and its sin, and, in a temper utterly free from shallow optimism, claiming the world as God's world and calling men to validate His assurance. In our own time, when many are content with a religion of vague good-fellowship, and many more hold desperately to a faith which is not far from despair, there have been those whose testimony echoes, however faintly, that of Jesus. No one can read, for example, Sir Henry Jones' Gifford Lectures [1] without feeling that here is one who through storm and strain has gained a confidence in the ultimate goodness of the world which, if we could share it, would bring us peace and power. But the right to hold it must be paid for at its full price; and that price is, I suspect, a Cross.

[1] *A Faith that Enquires.* The chapter in which he faces the problem of evil and vindicates this as "the best possible world" (Chap. XV) is one of the great Confessions of humanity.

To-day there is probably no aspect of life's problem more generally bewildering than that of the pain and evil of the natural order. Science, in recovering for us an interest in and a knowledge of the physical universe, has raised in the minds of the religious an acute perplexity. To earlier generations it was easier to take the world for granted; to assume that as God had made it, it must all be very good, save where His plan had been upset by the wiles of Satan and " man's first disobedience." For the rest, the Church had not moved far from the level of unquestioning acceptance. It was easy to find, from a selective view of Nature, " proofs " of its beauty and order and usefulness to humanity, and to explain its earthquakes and pestilences as divine interventions in punishment of man's guilt. Of the awful indifference and machine-like fixity and terrifying scale of things, as of the evidences of struggle and cruelty and waste and suffering in the animal world, there was little consciousness. The outlook was frankly anthropocentric—pre-Copernican in its cosmogony, pre-Darwinian in its biology. It is not surprising that the removal from that cosy and comfortable mansion to the vast and bloodstained universe of the scientist has not been easily accomplished—indeed is still far from its completion. Few if any of us have settled in and adapted ourselves and our faith to the new order. Tennyson's wistful wondering is still more typical than Browning's robust and royal conviction.[1]

For the old landmarks are gone: the familiar platitudes that seemed to prove the existence of God and the naïve admiration at the innocence and majesty of creation no longer serve our turn. We cannot understand, and yet we cannot ignore, the existence of the

[1] " The unhappy consciousness, the sense of the division between mind and the universe, and therefore between mind and itself, is *prima facie* rather intensified than set at rest by the vast material and intellectual advance of mankind."—Bosanquet, *The Value and Destiny of the Individual*, p. 316. The whole lecture deserves grateful study.

universe, or reconcile its apparent detachment and ruthlessness with belief in a God of love. It is all strange and terrible and unmeaning, going its own way with a supreme indifference to our complaints, hurting us horribly when we come into conflict with its laws, refusing to respond to our moods or to pay heed to our comfort, neither *Magna Mater* nor "homely nurse." It is not merely that the claims of man's dignity and all the elaborate emphasis upon his favoured position as the heir of heaven have been shaken by the discovery that he is an insignificant speck on a small satellite of an unimposing star; nor that a piety which still treats him as the "Lord of Creation" sounds nowadays sadly out of place. We can get over the blow to our vanity, and realise that, lords or not, we are still men with a man's life and a man's power, that moral values and religious experience do not depend upon size.[1] But the evidences of suffering are much more difficult to reconcile with faith in the supremacy of love: the tender-hearted and the imaginative could blame humanity for the imbecile and the slum child, they can only blame God for the liver-fluke and the praying mantis and the tiger. To talk of love in face of the "ethics of the jungle" is surely sentimental nonsense.

And so we see good men refusing, as Bishop Gore refuses, to "identify love with purely 'natural' processes,"[2] and regarding the universe as merely the scene in which the supernatural sovereign bestows miraculously, through Christ and His Spirit in the Church, the grace which is "the restoration of nature": or falling back, as others[3] would do, upon the mythology

[1] Cf. Sorley, *Moral Values and the Idea of God*, p. 460:—"The certainty of the moral law is not affected by anything that lies hidden among the unexplored recesses of the starry heavens."

[2] *The Holy Spirit and the Church*, p. 324. Dr. Gore's latest book, *Can we then Believe?* breathes a less pessimistic air.

[3] Cf. *e.g.*, the *Guardian*, April 1926. Gore, *l.c.*, pp. 196–8, has some wise words in criticism of the idea that the problem

of *Paradise Lost*, and thinking to solve the problem of evil by assigning its origin to an extra-mundane and rebel archangel. And among the less thoughtful some such attitude is very widespread. Dualism of this kind, whether veiled or definite, is almost inevitable to those who still regard creation in the traditional fashion, as an act rather than as a process. It can claim sufficient support from Scripture and in the popular religion of both Catholics and Protestants : and it seems to offer a way of escape to those who are shocked by the contrast between their ideas of God, ideas heavily charged with sentimentality, and the pain and evil of the world. Assuming that God is love, they expect to find His creation not merely good in its capacity to manifest value and to produce personality, but good in every detail and good in the sense in which they understand goodness. Failing to discover a static perfection, assuming that there is too much evil,[1] rebelling against the ethic of " vicarious " suffering, they take refuge in the belief that the original plan of the Creator has been upset, and upset not by the misuse of choice in His creatures, but by some supernatural antagonist. It would be out of place here to anticipate the alternative interpretation which it is one of the chief purposes of this book to put forward. Nor would we wish to speak lightly of those who are sensitive to the full horror of evil, and find it cruelly hard to reconcile the facts of life with their faith in God as love. But we must point out that diabolism raises many problems and answers none. It is faced with two possibilities. In one case Satan is represented as the equal rival of God, Ahriman against Ormuzd; and the universe, itself indifferent, is the battleground of their warfare. As a fighting creed

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of evil is made easier by speculations which refer it to a pre-mundane or pre-organic state.

[1] As if we had any standard by which to measure the proportion !

such Zoroastrianism has its value; but even those, like William James and Mr. H. G. Wells, who have popularised the doctrine of a "struggling God," hardly venture upon admitting the co-equality of the combatants. For the Christian[1] with his belief in "God the Father, Almighty, Maker of heaven and earth," a thoroughgoing dualism, although it would be the most satisfactory form of the hypothesis, is too obviously heterodox to be acceptable. The second alternative is that of the "fallen angel," the Satan of Milton, or the Demiurge of the Gnostics, a rebellious subordinate or an incompetent underling. The difficulties of such a theory are writ plain in history. Unless Satan is so powerful that God must leave the Universe at his mercy, is it reconcilable with His love that creation should suffer for Satan's misdeeds? If he exists on sufferance, then God is responsible for his continuance and ultimately for his activities in the same sense in which He is for ours; and this can only mean, as Origen foresaw, that he is, like ourselves, working out his own salvation. "One genuine instance of a will that remains unalterably evil," says Sir Henry Jones, "would destroy the hypothesis of divine perfection on which religion rests. That instance would mean that the limits of the goodness or power of God had been reached and that they had been found inadequate. It were the defeat of the will of a God who is Love."[2] On that showing, Satan can only be accepted at the expense of surrendering our Christianity or as a kind of Superman. Now to hold a belief in his salvability is not only to be guilty of Origenistic heresy,[3] but very largely to defeat the

[1] Those who accept the story of the Fall will realise that the serpent is a creature, and neither an "eternal opposite" of God nor a fallen angel. He typifies the animal heritage of misused powers, the evil due to wrong choice, not any extra-mundane or pre-organic power.

[2] *A Faith that Enquires*, pp. 248–9.

[3] Almost certainly condemned by Fifth Œcumenical Council A.D. 553, Anathema XV.

object for which the belief itself was introduced. For if Satan is like ourselves, free to choose good or evil, we have merely removed our inquiry from a sphere in which we may hope to study it to one of pure guesswork and speculation. A belief in a principle of unity and simplicity alongside of one of division and variety, might be made not unattractive, as in Mr. Wells' modernised version of the book of Job;[1] but Satan then is no longer the Devil, but perhaps the Logos. In any other form, the hypothesis rests on the subjective opinion that the Universe is so bad that God cannot be in any sole sense responsible for it—a conclusion for which there seems no evidence at all, and which strikes at the very heart of Christianity. There may be myriads of other beings, angelic or demonic, Martians or departed spirits, influencing mankind, or even, as the Scholastics maintained, the powers of Nature.[2] Hitherto the scientist knows nothing of them, and even if their existence be admitted on the basis of such testimony as is offered,[3] philosophers merely extend the scope of their inquiry into the nature and origin of evil without in any way diminishing its difficulty. Under such circumstances, while maintaining a reverent agnosticism, we have no right to use the theory, unless no other will explain the facts. The ablest Christian thinkers of our time are almost unanimous in their rejection of any solution along such lines.

Yet even among those who would say of Satan as

[1] *The Undying Fire.*

[2] Thomas Aquinas, *Summa*, II. i. 80, 2.

[3] The experience of powers of evil, though frequently asserted by mystics and spiritualists, would be generally explained as the visualising of internal conflicts. It is wholly untrue to maintain that such evidence is on the same level as that for the existence of God. That our Lord accepted belief in demons and in Satan, thus personifying disease and sinful thoughts and temptations, is clear; but such language was universal at the time : His use of it as of cosmology or eschatology is derived from that of His contemporaries.

Laplace said of God, " We have no need of that hypothesis," Nature is almost always regarded as irrelevant, if not actually alien. The scientific movement, identified by opponents in its early days with atheism, and taking for two generations a strongly materialistic attitude, has prejudiced us against a religious interpretation of the natural world. We are shy of looking for " the witness of Creation," wary of advancing our belief that the universe proceeds from and reveals the same God as the Incarnation, emphatic in maintaining the contrast between nature and grace, convinced that the study of the physical universe has nothing to do with Christianity.[1] How deeply this hostility has penetrated into the thought of the Church is manifest in the air of suspicion or of patronage with which its press and pulpits refer to science, and in the charges of heresy with which any Christian minister with scientific interests is liable to be assailed. That the study of such subjects is " pagan," " mere naturalism," " veiled infidelity," is still the conviction of a large number of the religious. Instead of welcoming all truth as God's truth, and every discovery, however startling, as potentially a fuller revelation of the divine, the first question in the mind of a believer is " How far is this a new attempt to undermine the faith? " or at best " How can this be reconciled with the Gospel? " When scientists open up to us fresh fields of wonder or bring us gifts of spiritual value, we welcome them with the " What have we to do with thee? Art thou come to destroy us? " or the " Timeo Danaos et dona ferentes." It is this mixture of cringing and scorn on the part of the Christian towards studies of which the younger generation realises the value and thinkers whose work and characters it reveres, that has alienated so many

[1] The insistence (*e.g.* by Streeter, *Reality*, pp. 26–32) on representing science as concerned solely with what can be measured, and as therefore relatively unconcerned with the sphere proper to religion, shows how deep is this prejudice.

from the Church. To hear half-educated curates or fully-educated doctors of divinity combining to treat science as the enemy; to see them parading, with the glee of a showman over a tame lion, any scientist who will assure them that he too is a Christian; to find them defaming the whole order of Nature, of which as a rule their knowledge is insignificant, in order to magnify their own mysteries of creed and ritual—this to some of us is a very real stone of stumbling. It is so unworthy of the great things that God has given us through scientists, so clear a proof of an underlying scepticism as to the validity of the Christian faith, so obviously false alike to the best thought of the Old Testament and to the mind and outlook of our Lord, that it raises in us an almost inevitable questioning as to the claims of the Church. No doubt scientists have often been non-Christian; but not more so than others, and generally on much higher grounds. No doubt new ideas and new knowledge are unsettling: does not religion include a passion for truth and a trust in its ultimate victory? No doubt it is distressing not to be able to settle down to a comfortable belief in the finality of our knowledge; is God so small that we can comprehend Him in a formula? Religion involves adventure and discovery and a joy in living dangerously: we "count not ourselves to have attained": "the Spirit will lead us," is leading us, "into all truth": "he that feareth is not made perfect in love."

That Creation should thus have been divorced from and contrasted with Redemption and Inspiration surely implies a very grave defect in our theology. If God the Father be "Maker of all things visible and invisible," if God the Son is He "by whom all things were made," if God the Holy Ghost is "the Giver of Life," then there cannot be a radical dualism between the manifestation in Nature and the manifestation of grace. It is "the one God who worketh all in all." The invisible power and divinity "from the creation of the world

are clearly seen, being understood by the things that are made." [1] The same reality is revealed in divers modes but by a consistent witness alike in the universe and in its Saviour. "The earth is the Lord's and all that therein is; the compass of the world and they that dwell therein." [2] We may not be able wholly to accept the Hebrew story of its creation, or the conception of God as operative from without rather than from within it. We may question St. Paul's account of man's progress as starting with a Fall and moving from bad to worse until its direction was reversed in Christ. But the splendour of their confidence in the witness of creation to its Creator is a part of our inheritance which we can only neglect with consequences disastrous alike to religion and to theology.

It is to the example of Jesus that the Christian will turn for the testing of the matter. And here the evidence is overwhelmingly plain. In the great summary of His teaching on the Kingdom of God, His attitude is not merely one of acceptance of the natural order. He appeals to it to enforce His deepest lessons. "But I say unto you, Love your enemies, that ye may be the children of your Father which is in heaven: for He maketh His sun to rise on the evil and on the good, and sendeth rain on the just and on the unjust." [3] "Behold the fowls of the air: for they sow not, neither do they reap nor gather into barns; yet your heavenly Father feedeth them. Are ye not much better than they?" [4] "Consider the lilies of the field how they grow; they toil not, neither do they spin: and yet I say unto you that even Solomon in all his glory was not arrayed like one of these." [5] Familiar words: and yet how far removed from our own too-frequent neglect. "We think that He superseded Paganism: He said that He superseded the Pharisees." [6]

[1] Rom. i. 20.
[2] Ps. xxiv. 1.
[3] Matt. v. 44–5.
[4] Matt. vi. 26.
[5] Matt. vi. 28, 29.
[6] Clutton-Brock in *The Spirit*, p. 295.

And when we turn to our Lord's training of His disciples, the contrast between Him and ourselves becomes even more notable. It is very generally agreed that we can trace, at least in broad outline, the steps by which He educated them for their work.[1] He chose the Twelve after His first open breach with the Pharisees of Galilee, when it was evident that the days of general and public ministry were drawing to a close. And at the very outset began to teach them in parables. "Unto you it is given to know the mystery [2] of the Kingdom of God," [3] He said after telling them the story of the Sower; and the significance of the words is evident. He came to men who were accustomed, as we are still, to look for God in the ordinances of the Law, in the books of the Scripture, in the services of the Synagogue, in the worship of the Temple, in the Holy City, in the learning of Rabbis and the ministration of priests. Such means He used Himself, and nowhere criticised except when they became narrowing and exclusive. But His first task was to enlarge the whole scope and character of religion, to show His followers that God's presence and character were manifested in the simple things of every day, in mustard-seed and leaven and growing corn, in sower and fisherman, shepherd and housewife, merchant and vine-dresser. Everywhere were parables: the common happenings were all full of meaning: they had a message of God's Kingdom for those who had eyes to see and ears to hear. It is in this constant atmosphere of communion with God through the universal sacrament of His works that Jesus lives and teaches. That is why He has sight in a world of the blind, why He is the Master not the slave of things. He knows their secret, hears their testimony, reveals their origin and nature. The earth to Him, as to the prophet who had caught something of His Spirit, is "full of

[1] Cf. *e.g.*, Major, *Reminiscences of Jesus by an Eyewitness*.
[2] That is "the revelation." [3] Mark iv. 11.

the knowledge of the Lord as the waters cover the sea";[1] it is the robe of the Eternal, the dwelling-place of the Most High. "Why, where's the need of Temple, when the walls o' the world are that?"[2] And if His disciples are to understand Him and to learn the lesson of Calvary and Pentecost, they must begin with a field of wheat. We may speak slightingly of "nature mysticism," or reverently and from afar of the insight of Wordsworth; the Son of Man took a group of simple peasants, trusted and fostered their native poetry, and bade them open their eyes and see around them and in every common thing the eternal energy of the Father. "Know ye not this parable? How then will ye know all parables?" It is not surprising that we have failed to understand the Cross or to commend the religion of the Crucified when we have omitted from our whole system of churchmanship the first lesson of our Lord.

For theology the omission has naturally had serious consequences. If we have come, and rightly come, to confess a close connection and even, as some would have it, an identification[3] between the Second and Third Persons of the Trinity, this has been generally achieved at the expense of their isolation from the First. Creation, Incarnation, Inspiration should surely be regarded as different phases of a single process. Here is the one God revealing Himself consistently under three aspects and in three modes, yet as ever and always the same. That is the conviction of the Creeds, and of the best Christian thinkers. Yet to accept it would be to reject once and for all the concept of Nature as indifferent or hostile, and of the study of the physical universe as irrelevant for the believer. It is the purpose of this book to suggest that in our faith in the Holy Ghost as the Giver of Life we have warrant for believing that

[1] Isa. xi. 9.
[2] Browning, *Dramatis Personae, Epilogue.*
[3] Cf. *e.g.*, E. F. Scott, *The Spirit in the New Testament*, pp. 184–6, 253.

He is operative not only in the edifying of the saints, but in the whole process of evolution; that we should enlarge our conception of Him by tracing His works, as the Greek Fathers did those of the Logos, in the whole self-revelation of God; that we should claim nothing less than the whole sphere of experience as the scene of His activity; and that, doing so, we should set our faces not only against the dualism of natural and supernatural, but against the idea of a conflict between scientific and religious truth.

"Or only see one purpose and one will
Evolve themselves i' the world, change wrong to right:
To have to do with nothing but the true,
The good, the eternal—and these, not alone
In the main current of the general life,
But small experiences of every day,
Concerns of the particular hearth and home:
To learn not only by a comet's rush,
But a rose's birth." [1]

It is on this ground that the proposal, weightily endorsed by many recent thinkers,[2] to admit the identity of the Indwelling Christ and the Holy Spirit seems inadequate. That in experience the two cannot always be separated may be readily granted: it would surely involve us in tritheism if they were rigidly distinct. But the Spirit is believed to proceed equally from the Father, and as such should be recognised just as emphatically in the revelation of nature as in that of grace. If the appeal be made to experience, it is difficult not to allow that in this matter there is among Christians a recognisable divergence. Whereas many, like Dr. Jackson,[3] find their most intimate communion to be with the living Christ, and would thus equate Him with the Spirit, it is equally true that others have

[1] *The Ring and the Book, Caponsacchi*, 1997–2005.

[2] Cf. the impressive series of quotations from many scholars in Jackson, "What do we Mean by the Holy Spirit?" *Hibbert Journal*, April 1926, pp. 499–512.

[3] *L.c.*, p. 511.

communion definitely with the Father rather than the Christ, and in this case would associate the Spirit with the First Person more naturally than with the Second. Some would perhaps hesitate to acknowledge that these latter were in the full sense Christians, or would feel that they lacked the characteristic and vivid faith of their brethren. But with the example and the words of Jesus before us, and with knowledge of the several types, such censure appears unwarranted. The difference seems to be psychological and to affect the interpretation of experience, not its essential quality; those who have known something of both forms will be slow to discriminate too precisely between them. And as Christians our doctrine of God justifies us in proclaiming that they are really one in origin, if diverse in manifestation.[1]

To relate the Holy Spirit in this way with the Father as well as with the Son, with Creation not less than with Redemption, would be to enrich our conception of Him and of the Godhead. There is very real danger of a thoroughly sentimental Jesus-worship which, however laudable in intention, ends with a belittling of Jesus and a virtual lapse into Arianism. Much of the thought of the day, with its harping upon the contrast between the veiled and unknowable Absolute and the struggling, suffering Christ, favours, if it does not profess, the heresy which the Council of Nicea met to condemn. Those who emphasise most strongly the centrality of Jesus in the Christian system and whose religious life depends upon faith in Him as divine, will not feel that their convictions are being supported by opinions which attach value to Him at the expense of contrasting Him with the Father. A theology which treats Him as the representative of mercy against justice, as do many theories of Atonement, or as the Invisible King in a world ruled ultimately by Necessity, as does a certain

[1] Reference may be permitted to my treatment of this subject in *The Inner Life*, pp. 69–71.

sort of popular preaching, or as the supernatural Intruder upon a scene of mechanical law—and such a view underlies much orthodox and learned doctrine—is at least not that of the Church; is indeed that against which the history of dogmatics records a continuous protest. The Council of Nicea may have been mistaken in the attempt to maintain both the aseity of the Father and the consubstantiality of the Son.[1] But at least they were right in rejecting the idea that the Son could be both divine and unlike the Father. To resolve the Unity in Trinity into a dyarchy of opposite Powers is to do more than reinterpret formularies: it is to break away from the general agreement of Christendom and ultimately to surrender a consistent philosophy of the Godhead. Whatever our views of the meaning and appropriateness of the Trinitarian Confession, few serious students would maintain that the Gnosticism which ascribed creation to a Demiurge or the Arianism which denied the essential oneness of Creator and Redeemer were not rightly rejected.[2] If the Incarnate is God, then Father and Holy Spirit must be, as Dr. Maltby puts it, "just Jesus everywhere."

But if it be the one God who is revealed as Father in the universe, as Son in the Incarnation, and as Holy Spirit in the supreme experience of men whereby they recognise and have communion with the Creator and Redeemer, is not this Unitarianism? Will not the thesis of this book be open to suspicion as at least Sabellian? [3]

[1] They protested even when their own doctrine of divine impassibility made their objection illogical. Their religious instinct that Jesus must be one with God triumphed over their logic.

[2] Gore, *Can We then Believe?* p. 162 and elsewhere, points out that "these dogmatic decisions were negative in purpose, though positive in form." The doctrine of the Trinity is rather a safeguard of the divinity of Jesus Christ and of the Spirit than a declaration of the precise meaning and relationship of the "Persons" of Son and Spirit.

[3] The term applied to the doctrine that God was one, but

Can it be reconciled with belief in the Three Persons of orthodoxy? It would probably suffice to reply that no one who confesses Jesus Christ to be Lord and God, very God of very God, can be justly condemned as a Unitarian—though many so-called Unitarians might endorse such a confession; or that the Unity of the Godhead is as much an article of faith as the Trinity of Persons, and is in far greater danger of being forgotten. But the matter is of too much importance to be dismissed in a couple of sentences. The doctrine of the Trinity is so much an integral part of the Church's belief, and is so gravely misrepresented by her critics, that an attempt to vindicate the position of this book towards it would seem to be important. If it is inevitably technical, that can hardly be helped; for the subject is one that has a long and elaborate history, and the verdicts of the Councils were not, as some imagine, a sudden piece of arbitrary ingenuity, but the summary of centuries of the best and most searching debate.

And first it may be well to remove a popular misconception. The doctrine is commonly described as a mystery, by its advocates as something to be received without enquiry, by its opponents as verbal quibbling and obscurantism. Mystery here, as elsewhere in such contexts, means not an unintelligible secret, but a revelation comprehended by the faithful. The whole purport of the Fathers was to unfold their belief in the clearest and simplest fashion possible, to declare it in terms that ordinary men could understand. They believed that Christ had illuminated both the nature of man and the nature of God; that men had brains for use; and that the noblest use was an investigation into the corollaries of the Incarnation. Their problem was how to correlate the Unity of the Godhead which they

for purposes of revelation was " expanded " into and manifested under three modes or rôles. Its precise form and author are little known.

accepted from Scripture, from philosophy and from experience, with belief in Him as revealed in His universe, in man, and supremely in the incarnate Jesus. Many thinkers of many races gave themselves to the quest. Irenaeus, the learned Bishop of Lyons, Tertullian, the acute lawyer of Carthage, Clement and Origen, the saintly scholars of Alexandria, and a host of lesser men, orthodox and heretics, Greeks and Latins and Syrians helped to clear the way. When the issue was raised in an urgent shape in A.D. 325 the Church was prepared to meet it. The West supplied the formulated result: the East its philosophic vindication. God was essentially one: Father, Son and Spirit constituted the one Godhead: the Son was of one essence with the Father. That is the Nicene definition. As against the Arian separation of the Father from the Son, it maintained unfalteringly the consubstantial Unity of the Godhead.

On the matter of the Trinity the Creed was less explicit. This was not, in fact, the issue at stake; for Arius' error lay not in denying, but in exaggerating the distinction of Persons. What was the actual doctrine of the Council, in what sense it would have interpreted the Trinity, can only be determined by inference and in the light of subsequent developments. In the Creed of Nicea there is no word used for what we now call Person; and the Greek usage at the time is obscure. The Latins ever since Tertullian had had a simple statement: the *Substantia* of Godhead was one; it existed in three *Personae*. Now *persona* does not properly mean personality, or even a centre of consciousness, much less an individual. Tertullian probably used it in its legal sense as a "party" in a case; and its association with the theatre, still preserved in the heading *Dramatis Personae*, indicates that it means "part," "rôle" or "character" rather than "person" in the modern sense. The Greeks had three words applied in doctrine to the Trinity, *οὐσία*, *ὑπόστασις* and

πρόσωπον. At Nicea in A.D. 325 *οὐσία* is used both in the Creed and in the anathemas appended to it, apparently as equivalent to *Substantia*, to denote that which constitutes the unity of the Godhead. *ὑπόστασις*, hypostasis, is inserted in the anathema as a synonym for *οὐσία*. *πρόσωπον*, which is the natural representative of *persona* and has the same connection with the stage (its original meaning is an actor's mask), is not used. It is plain that the Latin formula was very far from anything tritheistic; that "one God revealed in three modes or aspects" is nearer to their faith than an interpretation which gives to person a sense of individuality. Is this the original orthodoxy of the Council?

If we look forward in history, we shall see a definite development both in terminology and also perhaps in meaning. In A.D. 362, when Athanasius was trying to build up an opposition to Arianism out of the various sections of Eastern opinion, he found that hypostasis, which for him, as in the Creed, referred to the principle of unity, was being employed by the leaders of what is generally called the "New Nicene" party to denote what the Latins called *Persona*; and in the interests of union his Council sanctioned this meaning.[1] In consequence, by the close of the controversy in 381, "one essence, three hypostases" had become the established definition, though its acceptance involved some misunderstanding, both for Latins like Jerome[2] and in the disputes between Nestorius and Cyril.[3] The New Nicenes, and particularly Basil and the Gregories, not only used hypostasis to mean Person, but applied it in a way definitely favourable to a tritheistic doctrine. A favourite simile with them is to compare the three Persons to three men, Paul, Silas and Timothy,[4] and

[1] *Tom. ad Antiochenos*, 5, 6. [2] *Ep.* xv. 3.

[3] Cyril appeared to Nestorius to equate *ὑποστατική* with *φυσική*, to use hypostasis to mean rather "nature" than "person," *i.e.* in its earlier sense.

[4] Basil, Ep. 38: Gregory Nyss., *Quod non sint tres Dei*.

so to give to person almost its modern significance. In doing so, were they expressing the original intention of the Creed?[1] That is a question about which there is wide and open disagreement.

The belief that this tritheistic usage was an innovation, although it has been challenged in a very able pamphlet by Dr. Bethune-Baker,[2] is generally accepted by Patristic scholars, and rests upon very strong evidence. In the first place, that there was a wide difference between New and Old Nicenes in this matter is clear both from doctrine and from events. We have seen that the "New" party used hypostasis to signify "person." The "Old" certainly did not do so; and in the writings of most of them there is an avoidance of any term. There is, however, in the Creed of Apollinarius,[3] the most detailed exposition of Trinitarian doctrine surviving from the Old Nicenes, a regular application of *πρόσωπον*. Apollinarius was rigidly orthodox in his support of the Council of 325, and perhaps the most respected theologian of the party; and to find him freely describing the Persons as *πρόσωπα* indicates that this was normal. That the term did not commend itself universally is not surprising; for it had been employed by Sabellius, whose doctrine had been rejected and became increasingly an object of dread. That the "Old" Nicenes, whether or not they used *πρόσωπον*, accepted a more Sabellian meaning than Basil and his party is clear from two facts. The "Old" Nicenes were always suspected and sometimes accused by their successors as guilty of Sabellianism[4]—a charge to which

[1] It is very noticeable that Augustine never uses the analogy of three men, but always that of three functions within a single self. He, like Aquinas, is nearer the original than the later meaning of the Creed. [2] *Texts and Studies*, vii. 1.

[3] The so-called *Κατὰ Μέρος Πίστις* (Lietzmann, *Apollinaris*, pp. 167–84). For this use of *πρόσωπον* cf. my *Apollinarianism*, pp. 224–5.

[4] *E.g.* Apollinarius by Basil, Ep. 265; Paulinus by Basil, Ep. 263.

colour was given even by Athanasius himself in his steadfast refusal to condemn the avowedly Sabellian Marcellus of Ancyra, who was, despite his errors, a staunch supporter of the Creed of 325. And the similes of the " Old " Nicenes are never taken from three men, but always from such images as the fountain, the river and its water, or the sun, its rays and its light —similes which obviously emphasise the unity far more strongly than the separateness. That Basil himself so differentiated the Father from the Son as to feel grave hesitation about accepting the Nicene Creed is proved by his letters on the subject to Apollinarius.[1] These, which seem certainly genuine, fully explain his inclination towards tritheism.

Moreover at Nicea itself not only was the purpose of the Council clearly that of asserting the unity, but the one term used in the creed, *οὐσία*, was then less definitely applied to substance than in later formulae. As I have shown elsewhere,[2] *οὐσία* was regularly employed in doctrine during the half-century previous to Nicea in the sense of " person " rather than " essence," and it was still used in this sense after the Council by Apollinarius and possibly other Nicenes. The evidence would hardly justify us[3] in maintaining that the *ὁμοούσιον* of Nicea meant not " of one substance," but " unipersonal "; but, judging by the usage of the word in Nicene circles both before and after, it bore for contemporary Greeks a meaning nearer to this than to that of " possessing a common nature " which was afterwards imposed on it.

These refinements may seem meticulous to the general reader. They are of importance if by them it can be maintained that the original Nicene Creed confessed belief in " one God existent in and manifested under

[1] Basil, Ep. 361–4; cf. *Apollinarianism*, pp. 133–6.
[2] *Apollinarianism*, pp. 63–5 and 221–4.
[3] And that because it seems to represent the Latin term *substantia*.

three eternal modes or aspects of being."[1] This is not Sabellianism: for Sabellius held that the aspects were purely temporary and economic. But it is less tritheistic than what nowadays passes for orthodoxy—though it may be noted that several recent explanations of the doctrine are still more definitely Monarchian. It is at least in this direction of recovering the original Nicene emphasis upon the unity, and insisting that the distinction of the Persons must not be explained on the analogy of three separate human individuals,[2] that we shall bring our faith into line with the requirements of religion. It is the one God, at once transcendent and immanent, eternal and revealed in and through the universe, who for us men is uniquely manifested as incarnate in Jesus Christ, and with whom in our moments of inspiration we are in communion. The great Christian thinkers of the Early Church, who saw the whole process of the universe as an evolving self-revelation of God, interpreted it in terms of the Logos. The Fathers of Nicea revived the earlier terminology, assigning, though without any precise limitation, the Incarnation to the Son, and the creative and inspirational functions to the Son and the Spirit. May we not

[1] "The Holy Spirit is an eternally existing mode of the Being of God, and not a separate centre of consciousness and self-determination."—Swete, *The Holy Spirit in the Ancient Church*, p. 376.

[2] For support of this analogy cf. Temple, *Christus Veritas*, pp. 115–17, and for its rejection Pringle-Pattison, *The Idea of God*, pp. 409–10. Gore, *Can We then Believe?* p. 161, accepts "centre of will, consciousness and love" as the belief of orthodox Catholicism. This seems to ignore the doctrine of co-inherence and to imply an almost tritheistic independence. But "mode" or "aspect," though on the whole I believe them to be less open to objection, certainly err on the side of minimising the separateness. We have no term which can express the distinction without difference, the Trinity in Unity of the Godhead. If we could strip "person" of its sense of individuality, or "aspect" of its impersonal quality, either would serve.

follow their example, and, realising that Jesus Christ is the " express image " of the Godhead, ascribe to the Spirit of God the manifestation of the same Godhead in the cosmic process of which humanity is for us the consummation and Jesus the crowning glory? Along such lines, and holding fast the unity of God and the necessity of seeing all things in Him, we should be able to work towards a Christian philosophy which shall be true to the best experience of past and present, to the highest interests of science and of religion.

And at a time like this the re-interpretation of the realities of life is a task for which the world waits. In religion, as in politics and industry, we are beset by the pressure of mechanical systems and mechanised habits which tempt us to think in terms of programmes, not of persons, of organisations, not of organisms. The meaning of life for the Christian is to be found in its vital relationships, in the growth and adaptability of the incorporate Spirit of God, as He " subdues all things unto Himself." In our thought and action we cramp and confine His development by our dead systems and sub-personal behaviour. Programmes and organisations, legal, industrial, ecclesiastical, have their place as the embodiment and expression of personality; as such they minister to and are animated by the Spirit: they are just prison-houses of the soul if they are imposed upon it or retained when they have ceased to serve its end. All around us the Spirit of man and God is struggling in fetters, bound to the wheel of things by men who trust in wheels. It is often admitted that the machine of civilisation, constructed with a single eye to its business efficiency in supplying man's material needs, is breaking down; that it must be overhauled and reconstructed if it is to be saved from the scrap-heap. Such a metaphor, true as it is, is wholly inadequate; and if the future is planned on those lines, will land us in disaster. We are witnessing not the collapse of an engine, but the birth-pangs of humanity.

A new child of the Spirit struggles in the womb, and at times it seems that "there is no strength to bring forth." If we expect it to be inanimate, it may well answer our expectations and arrive stillborn. Its viability depends upon us; for it is we who must give it birth. Our concern is not to pre-determine its treatment, but to secure for it a call upon our best. We cannot prejudge its character; that will develop in our care. It is ours to put away fears and jealousies, selfish worries and selfish hopes, and to be humble and thankful and glad. For it is the Spirit of God who yearns to take flesh and come amongst us; and according to our faith will it be done unto us.

CHAPTER II

THE CONFLICT BETWEEN SCIENCE AND RELIGION

THAT of recent years Creation and Redemption, the spheres of Nature and of grace, should have been kept rigidly separate, and in consequence little attention paid by Christians to God as Maker of all things, or Jesus as Teacher of Nature's lessons, or the Spirit as the Giver of Life, is hardly surprising. For although the study of the natural sciences has produced a widespread appreciation of the beauty and wonder of the world, and for their students an immensely extended knowledge of its contents and evolution, such study until lately seemed to be developing along lines fatal to any sort of Theism. It is not necessary for us here to recall in detail the history of the first and tragic cleavage, when the doctrine of evolution was flung into the midst of a Church which still held stubbornly to the literal historicity of Genesis.[1] Few Christians of to-day can read those old debates without regret, or fail to admit that of the two Huxley and not Disraeli (or Wilberforce) was "on the side of the angels."[2] But making all allowance for the bigotry and timidity of churchmen, we may still claim that, though the arguments that they adduced were often as deplorable as their taste and temper, they had, in fact, good reason to criticise the new theory, and to view its acceptance with dismay.

Of evolution itself they need not have made much

[1] And yet Browning had written the final speech in *Paracelsus* in 1835.

[2] Cf. *Life and Letters of T. H. Huxley*, Vol. I, pp. 179–89.

difficulty. The verbal infallibility of Scripture is a heresy,[1] and was already proving in other directions disastrous. And Kingsley was right when he welcomed the new account of creation as getting rid of a "Master-magician," and called upon his fellows "to choose between the absolute empire of accident, and a living, immanent, ever-working God."[2] The real difficulty of Darwinism was that it weighted the balance heavily against the latter alternative. Professor Whitehead's drastic criticism—"By a blindness which is almost judicial as being a penalty affixed to hasty, superficial thinking, many religious thinkers opposed the new doctrine; although, in truth, a thorough-going evolutionary philosophy is inconsistent with materialism"[3]—will no doubt stand as a fair summary of the real facts. But it took two generations before such a verdict could be uttered.

The actual conflict thus begun will be treated in the present chapter in relation to the crucial issue of Use-inheritance; for in this restricted area the whole import of the debate is brought to a sharp focus. But before entering upon details, the broader aspect of the struggle must be noted. It arose out of the exaggerated claims made in the name and by the spokesmen of religion, and the correspondingly exaggerated counter-claims of the scientists; and the two parties once arrayed in hostile camps were more concerned with warfare than with enquiry as to the causes of their quarrel. The effect of all controversy is to drive the combatants into the advocacy of sectional and therefore inadequate views. However right the original victims of attack, in defending themselves they inevitably disregard whatever small elements of truth

[1] Marcion was the only early Christian who accepted the Old Testament as literally accurate; and he ascribed its inspiration to the Demiurge and wholly repudiated it.

[2] *Life of Kingsley*, Vol. II, p. 171.

[3] *Science in the Modern World*, p. 157.

their opponents may possess; and in their own position what is at first tentative becomes under criticism sacrosanct; the hypothesis solidifies into a creed; the believer in it cannot afford to make concessions, to understand rival arguments, to take a detached view of the issues at stake. When the war is over, those who look back upon it can trace not only the original *casus belli*, but the consequent hardening of opposition, perverting of judgment, embitterment of feeling. Thesis and antithesis are useful only as they lead to synthesis: neither of two alternatives is an adequate presentation of truth, and the more acrimonious the debate, the more inevitable it is that partisanship will lead to narrowness and distortion.

When Darwin published *The Origin of Species* the representatives of religion were already in a state of repressed anxiety. They claimed not merely to bear witness to a way of life and to the supremacy of spiritual values, but to possess a normative code of doctrine regulating every department of human thought. The Bible was for them authoritative in its account of the creation and nature of the physical universe: scientific study could only be tolerated if it accepted the premisses and verified the conclusions of churchmen. Hitherto the theories of scientists had not challenged the authority of Scripture and therefore (in their eyes) of religion in any very definite and popular fashion. A conflict must have seemed inevitable: Lyell, and not he alone, knew what was coming; but it were wisdom to postpone it. Darwin first gave full and coherent expression to the claim of the scientists to intellectual freedom, and provided them with a statement so carefully integrated, so widely applicable, so powerfully presented, and so obviously contradictory to religious opinion that the issue could not be shirked.[1]

[1] "To the end of time, if the question be asked, 'Who taught people to believe in evolution?' there can only be one

Even then had the discussion been kept on broad lines it might have been conducted without bitterness. Narrowed down to the problem of man's ancestry, it gave occasion to vulgar abuse and appeals to ridicule and prejudice. Scientists were roundly condemned and persecuted as infidels; and in retaliation came to feel that religion as a whole was their enemy. The public were invited to choose between Christianity and science as two rival interpreters of the whole of reality. The religious were induced to regard the historicity of Genesis as fundamental to faith; scientists to claim that their methods were of universal applicability. We can trace in the history of the seventies and eighties the growth of the belief that the whole of life, mental, moral and spiritual, could be explained in terms of physics and chemistry. Men like Huxley, who desired to stand for the legitimacy of scientific methods within their own sphere, ended by insisting that mechanistic concepts were valid throughout the whole realm of experience; and their naturalism was developed by others into a thorough-going materialism. Science, confronted with the extravagant fears and unscrupulous criticism of the devout, soon found itself put forward as a substitute for ethics, philosophy and religion. Only when Christians and scientists had alike re-adjusted their position could there be anything but strife between them. We shall see in the next chapter along what lines agreement is now being reached. Meanwhile a more detailed discussion of Darwin's doctrine will illustrate the general issue.

The pillars of Darwin's work are the four points: (1) that all organisms vary continually and that such variations are hereditable; (2) that in the struggle for existence natural selection eliminates all those which do not vary in the direction of increasing adapta-

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answer—that it was Mr. Darwin." Butler, *Life and Habit*, p. 277.

tion to their environment; (3) that in cases where there is obviously variation away from adaptation (as in the peacock's train or generally the brilliant colours of the male sex) sexual selection has fostered the evolution of such characters; (4) that, in addition, the acquirements of the individual transmitted to its offspring improve the race—this last being a concession to the doctrine of the earlier evolutionist Lamarck. It is evident that the first two represent variation as a purely mechanical process, conceived on strictly utilitarian lines: as such Christians might well dislike their implications. Struggle and death were the guides of fortuity: all organic structures, unless they could be explained by sex-preference, must have survival value. Fortified by statistics of the ova laid by a female cod, or by examples of mimicry like the Danaid-Pierid resemblances and of adaptation like the Leaf Butterfly, and offering a magnificently simple scheme, these two axioms commended themselves irresistibly. Of the two others Darwin himself was more convinced than his followers. Wallace, his fellow-discoverer, repudiated the former as ascribing an aesthetic taste to the selecting females, and, since variation is usually standardised, a curious uniformity of desire.[1] Huxley[2] rejected the latter as unproven and improbable; and although his warning did not deter Darwin from stating at the close of his life his conviction that he had underestimated the importance of use-inheritance,[3] the conflict on this issue soon proved to be crucial.

So long as room was left for the efforts of the

[1] *Darwinism*, pp. 269–300, an exceedingly judicious chapter. Prof. Julian Huxley points to the Ruff as the bird best suited to vindicate Darwin's theory. Here alone there is no standardisation of male colouring, and the female chooses.

[2] E.g. *Life and Letters*, Vol. II, p. 268.

[3] *Life and Letters*, Vol. III, p. 159. In the sixth edition of the *Origin of Species*, p. 68, he had already indicated the limits of natural selection.

individual to influence evolution, moral elements could be allowed a place in the scheme of development, and alongside of the mechanism of elimination the Christian could set aspiration and adventure, educability and inventiveness. He was saved from the dominion of chance and necessity; and might still keep his knowledge and his faith running rather jerkily in double harness.

And then came Weismann, giving precision and authority to Huxley's denial; and for the thinking Christian his last refuge was assailed. Use-inheritance became an issue of life and death. Weismann not only set out to refute all the alleged proofs of the Lamarckian doctrine and successfully challenge its supporters to bring forward a single instance to support their claim; but by his researches into the *Hydromedusae* he was able to formulate a theory of the nature of germ-plasm which made any transmission of the acquirements of the organism by inheritance to its descendants manifestly impossible. If the stuff of life were rigidly divided, half of the fertilised ovum building the body of the individual and half being preserved intact as the immortal bequest of which the individual was only the temporary shrine, there was no room for any influence from the one to pass over to the other. The body-plasm might develop whatever new aptitudes its environment encouraged: the germ-plasm remained what it had always been, entirely unaffected.[1]

Critics like Hertwig might compare such a conception to that of the early physiologists who named the spermatozoon an homunculus and pictured it as a miniature adult; and might demonstrate that such a

[1] Weismann's theory was based upon zoological evidence where the early segregation of the germ-plasm is obvious. It should be noted that "in plants early segregation does not occur. The tissues, still undifferentiated as somatic and germ-cells, are for long exposed to whatever the conditions of life may be before the gametes are specialised."—Bower, *Botany of the Living Plant*, p. 472.

theory failed to explain the facts of regeneration. Or, like Driesch, they might prove by experiment that the body-plasm was not precisely regimented to its special function, since, for example in Echinoderms,[1] if the original nucleus was divided each half would produce a perfect though small embryo. Or, like Brown-Séquard, they might bring forward cases where the effects of lesion were transmitted to the offspring.[2] Weismann's theory, postulating already an enormous complexity in the germ-plasm, had only to be elaborated still more to meet them. He did indeed admit that just as death affected both body and germ, so certain toxins, notably that of alcohol, and micro-organisms like the spirochete of syphilis, might penetrate the otherwise inviolable; but for the rest his reply was simply, "Give me proofs." And there were none to take up his challenge.

Weismann's work, although decisive for many biologists, was based upon evidence hard to test and impossible to verify by direct observation. Hertwig complains, "When biologists transform the visible complexity of the adult organism into a latent complexity of the germ, and try to express this by imaginary tokens, by minute and complicated particles cohering into a system, they are making a phantasmal image which indeed apparently may satisfy the craving for causality (to satisfy which it was invented), but which eludes the control of concrete thought." [3] The elaborate array of idants, ids, determinants and

[1] Similar experiments carried out by Hertwig with eggs of the frog and by Wilson with *Amphioxus* gave the same results.

[2] Section of the spinal cord in guinea-pigs produced epilepsy, and this was in certain cases transmitted to their young; cf. *Arch. Physiolog. Norm. Path.*, Vols. II, III, IV and XXIV. These experiments were hotly debated, being for long regarded as the test case of use-inheritance; cf. Bergson, *Creative Evolution*, pp. 84–6; Walker, *Hereditary Characters*, pp. 143–5, etc.

[3] *The Biological Problem of To-day*, p. 11.

biophores with which Weismann credits the nucleus of the germ-cell has, in fact, a purely speculative existence: it is invented to explain development, and its reality must remain a matter of inference. His rejection of use-inheritance on such grounds might well seem somewhat arbitrary. Scientists must pay tribute to his ingenuity; but might feel sceptical of his power to prove a universal negative.

Yet the position of a purely materialistic mechanism was undoubtedly strong if not dominant; and Haeckel's theory or law of recapitulation [1] gave it a popular presentation easily understood and applied. Embryology demonstrated that every organism reproduced in its early development the characters of the stocks from which it was descended. Each individual, as it was said, "climbed his family tree in order to be born," passing through the whole course of evolution and demonstrating that men physically not less than mentally "rise on stepping-stones of their dead selves to higher things." Selection operating on small variations revealed the latent potentialities of the germ-plasm, hewing out as the sculptor from the block of marble the imprisoned form, refining, perfecting, polishing with a ruthless disregard of waste-products. Line by line, phase by phase the old was sacrificed to the new; and neither suffering nor aspiration could avail to check or hasten the process. Mechanical forces operative universally were fashioning creatures whose freedom was an illusion and whose fate was immutable. It might be that the process had passed its zenith, that only degeneration remained for us: it might be that mankind was itself only a phase, like those which were recorded in its embryonic stages, on the way to a superman. In either case we could

[1] Set out in *General Morphology*, ii. p. 300. This law won a large measure of approval though it was disputed by Huxley, *Scientific Memoirs*, i. p. 303; it was later modified by its author, *The Evolution of Man*, i. pp. 4–10.

only observe the process and submit to it, victims of a soulless automaton.

It was only with the appearance of Mendelism that the inheritance of acquired characteristics was generally repudiated. For here was a theory which, if conjectural, was yet capable of being successfully applied and of yielding rich results. The absence of evidence to the contrary was the mainstay of the theory of the isolated germ-plasm: positive proof in abundance was collected to support the doctrine of the segregation of characters. Mendel himself, indeed, had done no more than chronicle the results of experiments in his monastery-garden, which demonstrated that certain pairs of characters, such as tall and dwarf growth, purple and white flowers, when the pea-plants bearing them respectively were crossed, manifested themselves according to a definite law of alternative inheritance in the offspring of the second generation. He contented himself with recording this law as the consequence of particular observations, and did not go on to suggest its universal applicability; and his paper lay neglected for more than thirty years. Its discovery followed closely upon the theory of De Vries that evolution took place not by fluctuating variations operated upon by natural selection, as Darwin and his followers believed, but by sudden and hereditable mutations. And the two gave birth to the first serious rival to the Darwinian hypothesis. Lamarckianism, which had hitherto, despite Huxley and Weismann, maintained a hold, was explicitly and necessarily rejected root and branch by the Mendelians.[1] Environment was powerless: individual character was determined solely by the qualities of the zygote or fertilised germ-cell, and could only vary within the limits of the factors possessed by the gametes of its two parents. Mendel's law established

[1] For the relation of Mendelian theories of the germ-cell to those of Weismann cf. Lock, *Variation, Heredity and Evolution*, pp. 280–3.

the absolute fixity of inheritance: De Vries' theory gave an answer to any who asked: "How then does evolution take place?" The case seemed overwhelming, and as such was triumphantly proclaimed.[1] It was speedily demonstrated that two blue-eyed parents could not produce a brown-eyed child, and that night-blindness, once introduced into a stock, reappeared at regular intervals in the family-tree. On the strength of such evidence it was easy to infer that moral qualities were equally transmissible, that two kleptomaniacs would inevitably produce a brood of incurable thieves, and that the Mosaic code, and indeed all penal legislation, would speedily be relegated to a museum of archaeology. It only needed the pedigrees of "the Jukeses" and of Jonathan Edwards (how well we knew those names in 1910!) to convince the enlightened that here was the beginning of a new age. It is sometimes fortunate that the enlightened are few and uninfluential.

It is, of course, a commonplace that the conclusions of the scientist, and particularly of the foreign scientist, take almost a generation to percolate down to the ordinary educated public. Weismann, though his theory was based upon and, strictly speaking, involved a thorough-going materialistic determinism, seemed to leave a loophole for convinced if muddle-headed Christians. If we were unable to alter the stuff of our heritage, at least education became the more important: we could overcome the flaws of our birth by enriching the culture even of the worst soils. If the course of evolution was entirely in the hands of

[1] It should be noted that the existence of mutations does not rule out the possibility of the influence of environment or of the inheritance of acquired characteristics. "Mutations," says Prof. Bower, *Botany of the Living Plant*, p. 472, "may have been promoted or actually determined by the external conditions: in fact they may have been acquired." He cites the evidence of parallel development or adaptation, *l.c.* pp. 161–86, as indicating this.

God, we could still co-operate with Him to the best of our capacity. Sheer Calvinism was logically but not obtrusively forced upon us. And in any case he was only "one more of these German atheists." But with Mendelism the matter could not so easily be dismissed. The theory was eminently practical: agriculturists and stock-breeders found that it worked: Professor Biffen gave it world-wide recognition; and behind him was an enthusiast who could not limit its scope to wheat and cattle. It is perhaps permissible for one who had the privilege of being for some time a pupil of Dr. Bateson, and for whom Mendelism was the last serious obstacle to the acceptance of Christianity, to testify to the influence of a great and honest and generous teacher. Like Lucretius, Bateson saw himself possessed of a religion which should free men from religion. It is easy to speak slightingly of him as the high-priest of an exploded cult; but indeed in the first decade of the century he was a priest in his high-souled and passionate advocacy of an uncompromising determinism, and yet a priest who had the greatness to admit the limitations of his creed when facts proved that its claim had been overstated.[1] If, when the first results hostile to his views (in my own case a course of experiments with Lepidoptera) convinced some of us that the "law" was not universal, and that probably even in cases where it applied the analysis on which it depended was incomplete, Bateson was slow to admit their cogency, we who so easily turn a blind eye to inconvenient data cannot criticise him with much sincerity.

Yet, in spite of the new impetus given to what had better still be called Weismannism, life, particularly in the churches, went on much as usual. In all cases tradition is amazingly strong, not only because men are ignorant and timid, and in religion take most of their ideas at second-hand, but still more because the

[1] In *Nature*, Vol. CIX, p. 553.

deepest instincts of mankind are not easily satisfied with a materialistic outlook upon life. To sneer at conventionality and obscurantism is smart and simple: the fact that Christianity carries conviction to multitudes who have neither the will nor the ability to intellectualise their faith is not so easily disposed of. And in this case ideas like that of maternal impression [1] were so deep-seated, the notion of deliberate individual adaptation as a cause of evolution so plausible, and the belief in environment, in education and social reform, so general that neither Weismannism nor Mendelism seriously shook their hold. A quartette of eloquent papers at a Church Congress,[2] and the initiation of a movement for the advocacy of Eugenics were the chief results. The general public was hardly conscious of the new dawn. For the past thirty years professors may have talked vaguely about the uncertainty of use-inheritance; theologians may have paid lip-service to a denial of it: but novels and natural-histories still visit the sins of the fathers upon the children in the old familiar style. The lost heir measures a sketch with his second finger; and the detective identifies him because his father's first finger had been shot away just before his birth.[3] A Kea Parrot (*Nestor notabilis*) of New Zealand, originally a fruit-eater, is said one day to have discovered a dead sheep, and satisfied its hunger by a meal of kidney-fat; having once acquired this unpleasant taste, it not only proceeded to indulge it by tearing open the vitals of living animals, but transmitted the habit with disastrous success to its progeny. It is possible, of

[1] The attitude of scientists towards maternal impression is typical. Till about 1850 belief in it was universal. In 1888 Weismann wrote of it "as completely and for ever abandoned by science" (*Essays upon Heredity*, Vol. I. p. 459). In 1920 Baudouin, *Suggestion and Auto-suggestion*, pp. 92–5, can treat it as "now beyond dispute."

[2] At Cambridge, 1910: *Report*, pp. 144–77.

[3] Cf. Bernard Capes, *The Skeleton Key*.

course, that such cases are authentic: if so, they ought to be investigated by competent scientists. But the present point is that their possibility went unquestioned by the public, in spite of Weismann; and that on a matter of primary importance for ethics and for religion the experts held one view and popular opinion another. The Christian community was, in fact, living in a fool's paradise; for it does not take much intelligence to discover that if Weismannism is true, not only are the social programmes to which the Church has lately devoted so much attention wholly misdirected, but the conception of God which Jesus proclaimed and His followers accept is demonstrably untenable.

That this is, in fact, the logical consequence of the denial of use-inheritance is not difficult to understand. On its practical side Weismannism, if it does not destroy the value of social amelioration, at least renders it futile as a means to the ultimate solution of the problems of corporate life. Christians have accepted the belief that in improving the conditions of the poor, in the clearance of slums, the abolition of sweating, the prevention of infant-mortality and the provision of schools and hospitals, they were not only fulfilling an obvious duty, but directly promoting a better world. Weismannism undermines this belief. No doubt the improvement of the environment and the education of the individual are still necessary palliatives; no doubt they add to the social inheritance which can be handed on by teachers from one generation to another; but if none of these reforms can have any effect on the innate capacities of our children, if it is "stock" and not circumstances that alone determines man's quality, then a policy of social humanitarianism by which the better-born are taxed to the verge of race-suicide in order to keep alive the rapidly multiplying children of the unfit is disastrously short-sighted. We have assumed that a general raising of the standard

of life will improve the race, not only by conferring temporary advantages on the individual, but by promoting the evolution of better raw material: no doubt, says the Weismannist, it will enrich the social heritage, will relieve immediate distress, diffuse a measure of culture, and make in the present for the greatest happiness of the greatest number. But look at the other side of the picture. By your weak sentimentalism you are fostering the tendencies of the worst types to increase by leaps and bounds at the expense of their betters. Families among those of good pedigree are being diminished in order to support a horde of semi-defectives. Education can do something to raise these degenerates one by one; it cannot change bad inheritance into good. To save and foster the children of the lower orders and to increase their means of life is in the long run to swamp civilisation beneath the inroads of its inferior products. A wise sociology would be ruthless. Its first care would be to readjust the balance, to encourage the birth-rate of admittedly good families, and to take drastic steps to eliminate stocks which cannot be permanently improved. You are alleviating a little transitory hardship—and glowing with self-righteousness over your performances—at the cost of imperilling the future. All your boasted reforms merely encourage the fertility of the undesirable. It is only folly which refuses to adopt the method of the human stud-farm as the method of the Kingdom of God.

However offensive a bald statement of the position may be to the Christian conscience, this is the logical result of the denial of use-inheritance. It has been hinted in more graceful language by the Dean of St. Paul's [1] and his fellow eugenists, whose pedigrees and income-tax returns are alike long; and journalists like Mr. Lothrop Stoddard have not hesitated to proclaim it in "scare" headlines. Perhaps it is to the

[1] *E.g.* in *Outspoken Essays*, Vol. II.

credit of our human nature that we preferred to dismiss such arguments unanswered, to shut our eyes to truth, if this was truth, in the interests of charity, to follow our hearts rather than our heads. But generous emotions ought not to drive us to obscurantism.[1] The issue raised by Weismann ought not to have been shirked.

And if in this respect his theory was revolutionary, its importance for theology was hardly less grave. If it be true that the germ-plasm unfolds its contents from age to age without modification from the environment of the transient individual, then plainly progress can only be due to the pre-determined composition of the reproductive cells. All the long series of organisms is inherent in these cells from the beginning. New forms appear when the time is ripe, and cannot be hastened, delayed or modified, whatever the failures or achievements, sufferings or triumphs of living creatures. Either the whole process is due to blind chance, to changes of which human knowledge can give no explanation at all; or it is the unfolding in due and unalterable course of a plan which owes nothing to the actions of its puppets, and reveals only the inscrutable purpose of an omnipotent determinism. For religion the dilemma is manifest. Theology must take refuge either in the belief that when each new form appears there is a special intervention of God, who interferes to modify arbitrarily the composition of the germ-plasm (in which case we are back at the old belief in special acts of creation, of a deity who sets the machine working and then casually improves it); or in the sheer Calvinism which finds the ground for the whole process in the pre-determined and inexorable will of God, and leaves no room at all for any modification of that will by the efforts or aspirations of

[1] While regarding a rigid Weismannism as demonstrably false, I am not prepared to deny the value of certain proposals of " negative Eugenics."

His creatures.[1] St. Paul was right when he spoke of man as clay in the hands of the potter; [2] he was wrong when he called us God's fellow-workers,[3] for the permanent improvement of the life-stuff of humanity is wholly out of our hands. The evil heritage with which we are born is due not to man's sin, but to God's direct fiat. Most of us, while recognising that the Fall as described in Genesis is legendary, have maintained that it symbolised an abiding truth, that man's misuse of his freedom to serve God was responsible for the tragedy of his state: [4] if "acquired characteristics" cannot under any circumstances be transmitted, men will still, whatever our struggles for virtue, be born depraved. God has made us so.

That this is no far-fetched picture of the logical consequences of Weismannism may be seen by the explanations of evolution offered by its exponents. Theologians may take as an example the recent and very interesting attempt of the Archbishop of Armagh [5] to reconcile a thorough-going Neo-Darwinianism with a Christian conception of the universe. Basing his statement on the work of Sir Arthur Keith,[6] and rejecting altogether the possibility of use-inheritance, he sums up his position without compromise: "The course of evolution is not the outcome of the chance collision of atoms and the accidental competition of living forms. Nor was it produced by the mere push of an aimless *élan de vie*, or *vis a tergo*. Nor again is it the accumulated result of the strivings of the multi-

[1] For a strong statement of the case for predeterminism in biology, cf. Osborn, *The Origin and Evolution of Life;* and E. S. Russell, *Form and Function.*

[2] Rom. ix. 21.

[3] 2 Cor. vi. 1.

[4] For a brief but brilliant demonstration that freedom "is essential to the theistic interpretation of reality," cf. Sorley, *Moral Values and the Idea of God,* pp. 460–7.

[5] *Science and Creation,* Longmans, 1925.

[6] Huxley Lecture, *Nature,* August 1923.

tude of living things, such efforts as those of the primitive deer to reach the higher branches of the trees on which it fed and by which, it has been supposed, that along one particular line of development it transformed itself into a giraffe. Nor, further, can we seek the explanation in the striving of an unconscious will. The purpose which guides evolution is far too clear and far too comprehensive for that. All these theories are either demonstrably false or manifestly insufficient. The one principle that can truly illuminate the darkness is that of a Supreme Universal Intelligence permeating and controlling the course of evolution." [1] Thus rejecting all such views as are associated with the names of Lamarck, Bergson, Prof. J. A. Thomson and Prof. McDougall, the Archbishop finds a non-deterministic doctrine of organic life difficult to state clearly. In certain passages, for example when he states that " the Creator took the risk, and launched upon its trial the principle of Individuality . . . whereby self-directing centres of control—monads—thus to some degree incarnated the originating activity of creation," [2] he seems on the verge of admitting that the individual organism is actually a partner in the creative process, and by its efforts and adventuring enhances the possibility of development. Yet this is, of course, irreconcilable with his premisses. Elimination, the ruthless destruction of the unfit, is the only means of advance to which he can appeal. When he writes : " The pursuing wolf-pack gave to the horse his swiftness and his strength. The leopard's claw gave to the antelope its surpassing grace and agility," [3] he cannot mean that the horse or antelope by the use of its powers bequeathed superior speed to its descendants, but merely that the weaker beasts were killed off. We are left with the doctrines of Malthus and of Weismann, with natural selection as the sole explanation

[1] *L.c.*, pp. 62, 63. [2] *L.c.*, p. 108. [3] P. 114.

of evolution, and with a concept of the deity appropriate perhaps to the Calvinism of Ulster, but hard to reconcile with any other form of Christian faith. Surely if we "incarnate the originating activity of creation," the phrase involves the power not merely to react temporarily upon our environment, or to increase the content of education, but to influence for good or evil the course of evolution. If habit has no effect upon heredity, except by influencing the likelihood of survival, if the slaughter of the unfit is the sole means of biological improvement, belief in a God of Love, a Father as opposed to a Monarch, becomes extraordinarily difficult.

As a matter of fact, quite apart from the direct evidence for use-inheritance, the foundations of the Darwinian position have become of recent years seriously insecure.[1] The two first principles were the transmission of small variations and the survival of the fittest. Both of these doctrines are highly precarious. Variability is universally admitted, explain it how we may; but variability will not account for progress unless the variants transmit their qualities to their offspring. That they do so has been accepted as axiomatic by Darwinians;[2] but is almost certainly not in all instances the case. The biometricians long ago demonstrated that, in instances such as human stature, the families of the very tall or very short "reverted"

[1] They were criticised from the first (*e.g.* by J. J. Murphy, cf. *The Variation of Animals and Plants under Domestication*, Vol. II, p. 222), as failing to account for the evolution of highly complex organs such as the eye, where improvement would involve simultaneous and co-ordinated change in very many parts, and where chance variation in any one part alone would impair or destroy vision. Herbert Spencer throughout his life maintained a Lamarckian position on grounds admirably set out in his *The Inadequacy of Natural Selection* (cf. Summary, p. 30) in *Contemporary Review*, 1893.

[2] Cf. *e.g.*, Walker, *Hereditary Characters and their Modes of Transmission*, p. 91.

towards the mean of the race.[1] This might perhaps be explained as due to the influence of the other parent, or to factors inherent along with extreme stature in them both which neutralised the appearance of the tall or short character. But the pure line experiments [2] carried out by Johannsen with Scarlet Runners, Agar with Water-fleas (*Simocephalus*), Jennings with the *Paramecium*, Tower with potato-beetles, and by Pearl with poultry demonstrated that small variations were not in any degree transmitted: what is inherited is the mean of the race, not the variation of the parent. The effect of such experiments is to overthrow the fundamental postulate of Darwinism, as an illustration will show. Take the matter of immunity from disease. If tubercle attacks a tribe hitherto unaffected, only those varying towards immunity will survive; it was assumed that the offspring of such variants, themselves varying in different directions round their parent's type, would produce certain individuals still more definitely immune; and that under eliminating infection in each generation the standard of immunity would be raised by the survival of individuals progressively more resistant to the bacillus. That resistance is acquired is certain; but if the descendants of the survivors vary not from their parental status, but from the mean of the race (as the pure-line results prove), then some other factor than elimination must be found to explain the development of disease-resisting families.[3]

Similarly the second postulate, the selective power of the struggle for existence as a chief factor in evolution, is to-day widely challenged. Such careful

[1] Cf. Karl Pearson, *The Grammar of Science*, p. 456.

[2] Summarised by MacBride in *Evolution in the Light of Modern Knowledge*, pp. 224–7, and by Conklin, *Heredity and Environment*, pp. 266–9.

[3] Cf. Adami, *Medical Contributions to the Study of Evolution*, pp. 47–55 and 158.

study of the actual death-rate as has been carried out in regard to the butterflies illustrating mimicry [1] or by Mr. Douglas Dewar on Indian birds [2] goes to prove that the possibilities of the survival of the fittest have been gravely exaggerated. In birds, as any field-naturalist knows, the vast majority of deaths take place within the first month or two of life and by means in which selection cannot apply: [3] in moths very slight observation will prove that adaptation occurs in many cases where there is, in fact, no enemy to be avoided; [4] and recent melanistic variations are far more conspicuous than the original types.[5] In mammals such theories as that of the white "flash" in the Rabbit or the Springbok are conjectures merely fanciful and altogether without solid foundations.[6] The whole utilitarian explanation, which never accounted for more than a few carefully chosen facts, does not, apparently, suit even those on which it was based. Warning colours do not warn—in many cases birds and beasts actually prefer them; [7] mimicry, if

[1] Cf. *e.g.*, Manders, *P.Z.S.*, 1911, p. 696; Fryer, *ibid.*, 1913, p. 613, and *Trans. Royal Soc.*, B., Vol. 204, pp. 227–34.

[2] *Indian Bird Life*, a careful and convincing survey of the causes of death, proving how very small a proportion of these have any selective value.

[3] For some seasons I kept careful check of all nests within my knowledge not more than one in eight turtle-doves nor than one in three *Passeres* produced full-fledged young.

[4] *E.g.* in Britain the *Catocalas*, those perfect mimics of oak or willow.

[5] E.g. *A. doubledayaria*, *A. nebulosa robsoni*, *B. repandata nigra*, etc. The suggestion that these are adaptations to smoke-blackened areas is, like many theories, an ingenious hypothesis wholly false to fact; for such mutations occurred originally and most frequently in the Delamere district of Cheshire, and not in the Black Country or in South Lancs.

[6] Rabbits have white tails; if they had not, it would be camouflage; as they have, it is a beacon when they run after one another—which they seldom do, and then by scent and sound.

[7] *E.g.* in Ceylon "the Wood-Swallow almost always chooses

profitable in some cases, is quite the opposite in others; explanations, compelling in their logic, do not explain; the whole theory, so ingenious, so simple, so inevitable, must abandon its claims. Not that selection does not occur, or that adaptation is not obviously true; but the one does not account, save to a subordinate extent, for the other. It is to the biochemists, to those who shall explain the intricacies of colour-pattern in terms of pigmentation and the relationship of food and environment to form and structure, and to the observers who shall fill out our knowledge of life-history and habit, that we must look for further knowledge.[1] Meanwhile there are puzzles everywhere. Why, for example, does the Grayling butterfly (*Satyrus semele*), whose underside is beautifully mottled and stone-like, choose to sit on a path, close its wings and lie over horizontally, while the Small Tortoiseshell (*Vanessa urticae*), whose underwings are equally "protective," sits in similar places with the flaming splendour of its upper side expanded and exposed? Or why if the hen Chaffinch, for reasons of safety, does not share the brilliant colours of her mate, are male and female Goldfinches equally conspicuous? Why, indeed, if utility is the determinant, are not all persecuted creatures drab or green of hue? Most of us were brought up in an era when hope was high, when it seemed as if the whole process of evolution had been explained by a few marvellously demonstrated generalisations. That age has passed. Evolution remains

butterflies of the so-called nauseous genera *Danais* and *Euploea*" (Fryer, *P.Z.S.*, 1913, p. 618).

[1] Even those zoologists who most strongly advocate theories of protective coloration as due to natural selection are beginning to admit that the evidence of field-naturalists cannot be reconciled with their views and cannot be merely swept patronisingly aside (cf. Pycraft, *Camouflage in Nature*, pp. 68–9). It is disappointing that after a chapter on colour-change which suggests a more fruitful line of exposition, this book falls back upon selection and the old speculations.

an accepted, an indisputable fact: we can no longer profess to account for it by any single scheme as yet formulated.

And if the general postulates of Darwinism have not gone unchallenged, the particular issue of use-inheritance has been not less definitely criticised. The younger biologists, although rejecting Vitalism and asserting the competence of mechanistic interpretation throughout the physical realm, are rapidly abandoning the claim that this realm includes the totality of experience or that materialism can be a satisfactory philosophy. And the doctrine of evolution by natural selection alone has few, in these days, to defend it against the multitude of its critics.

The story of their revolt need not be told here. We are concerned with it now solely as it affects our subject; and the matter is full of interest.[1]

The weakest spot in the Neo-Darwinian position had always been its explanation of the familiar phenomena of degeneration. It is obviously demonstrable that organs no longer in use become atrophied and tend to disappear. Darwin in the *Origin of Species*[2] had drawn attention to the blindness of species habitually dwelling in caves, and had not hesitated to ascribe their loss of sight to disuse. His successors, unable to accept this concession to Lamarckianism, criticised his statement that "it is difficult to imagine that eyes, though useless, could be in any way injurious to animals living in darkness," and strove to show that natural selection would account for their disappearance. How difficult was their task may be seen, for example, in Wiedersheim's ingenuous treatment of the relics of disused structures in the human body, a treatment forced upon him by his preconceptions but involving him in

[1] For a summary of the evidence for use-inheritance up to 1918, cf. Adami, *Medical Contributions to the Study of Evolution*, Chap. V.

[2] Pp. 170–3.

special pleading of a very unconvincing kind.[1] Degeneration has never been adequately explained in terms of the struggle for existence; and its evidence, even in the lack of more positive disproof, kept alive the conviction that the repudiation of use-inheritance was not wholly compatible with the facts.

The first breach in the fortress of Weismannism was made when Driesch and Hertwig proved that the isolation between germ- and body-plasm was incomplete, at least on the side of the latter. When it was admitted that toxins introduced by the activities of the organism influenced that organism's offspring, the breach was seriously widened; for if toxins from outside the body, like alcohol, could permeate to the germ-plasm, surely the way was open for the chemical elements of the body itself to exert a similar influence.[2] Starling's theory of hormones,[3] elements derived from the endocrine or ductless glands, demonstrated how subtle and pervasive were the organisation and interactions of the various constituents of the living being: a rigid dichotomy was manifestly becoming impossible; every factor had its bearing upon the continuance of the whole. This led rapidly to the conviction that to study a living object by dissecting it into sundry pieces of machinery and considering these in isolation was to become involved in hopeless confusion. The sum of the functions of the parts could only be under-

[1] *The Structure of Man*, pp. 212–5, based upon Weismann's unsatisfactory theory of Panmixia, for which cf. *On Heredity*, pp. 85–91. It is very notable that even Sir A. Keith, who is not a Lamarckian, falls back upon disuse, along with tainted germ-plasm, to explain degeneration: cf. his Huxley Lecture in *Nature*, cxii. p. 266.

[2] Cf. the experiments of Guyer and Smith, and of Stockard on rabbits and guinea-pigs.

[3] *The Chemical Correlation of the Functions of the Body.* The theory that hormones influence the germ-plasm and that thus environment and use could affect heredity was put forward by Cunningham, *Hormones and Heredity.*

stood in terms of the whole. As a tentative solution, pending the proof of use-inheritance, Prof. H. F. Osborn and Prof. Lloyd Morgan put forward almost simultaneously the theory of "organic selection," that acquired characteristics, though not directly influencing the quality of the germ-plasm, might yet act, so to speak, as nurses fostering its capacity to develop in the particular direction in which the individual had himself progressed. Thus a musical genius by his hours of effort might not indeed bequeath to his child his own precise accomplishment transmitted to the spermatozoa, but by his practice would create an environment for his germ-plasm in which it could best strengthen its existing tendency towards artistic eminence. Here was a bridge across the gulf—not very strong or wide, but at least a means of escape from a sheer precipice. And since then the evidence against a rigid denial of use-inheritance has increased in strength. Dr. Adami, in his Croonian Lectures, summarising the results of twenty years' work, proved that "among the bacteria acquired properties of certain orders are inherited through numerous generations," [1] and delivered a crushing refutation of Weismann's theory of the structure of the germ-cell and of Bateson's doctrine of evolution by loss.[2] Mr. Cunningham,[3] from his work on the pigmentation of flat fish and on the Japanese long-tailed Fowls, made a strong case for the inheritance of changes produced by environment and special treatment. Dr. Kammerer of Vienna,[4] Dr. Durkhen of Breslau and Prof. Pavlov of Petrograd, by a series of carefully-planned experiments on Sala-

[1] *Medical Contributions to the Study of Evolution*, p. 70.

[2] Put forward as a last defence of his Mendelian position at the meeting of the British Association at Melbourne in 1914.

[3] *Hormones and Heredity*, pp. 129–33, 209–14.

[4] Kammerer's experiments related in *Allgemeine Biologie*, pp. 271–6, have been severely criticised, and his tragic death has been taken, perhaps unjustly, as proof that the critic was justified.

manders, White Butterflies and Mice, respectively, have demonstrated that the effects of habit are, in fact, transferred—a proof which Prof. MacBride does not hesitate to describe as " of colossal importance for the theory of evolution," [1] and we might add for ethics and for religion. Weismannism, and with it the elaborate determinism of the Mendelians, falls, if this conclusion is correct, from its entrenched and uncompromising eminence.

If the fixity of inheritance is abandoned, Mendelism as a universal principle must necessarily be abandoned with it, since the theory of the segregation of characters depends for its reliability upon the axiom that these are unmodifiable by environment. But apart from the explicit rejection of Weismannism, there has been for years a growing certainty that " mutationism " did not fit more than a selected portion of the facts. Reference has already been made to cases among the Lepidoptera where the law of alternate inheritance could not be reconciled with results. Even where a sudden mutation had appeared, as, for instance, in the melanic *Amphidasys betularia* ab. *doubledayaria*, although in the vast majority of cases a pairing between this form and the original type gave the black as dominant in the first generation and three blacks to one speckled in the second, intermediates had a way of appearing at intervals. And in the case of races from different localities, as in the experiments of Bacot and Prout [2] with *Acidalia virgularia*, no calculable result of any sort was reached. For a time it was supposed that in these particular instances the factors were so far complicated as to elude analysis; but as experimental work proceeded, similar excep-

[1] On these as its chief supports he bases the claim that " habit is response to environment," that inherited structure is nothing but the crystallisation of the habits of past generations. *Evolution in the Light of Modern Knowledge*, p. 261.

[2] *Proc. Royal Soc.*, B., Vol. LXXXI.

tions, due to climatic or environmental causes,[1] and therefore challenging the axiomatic principle of fixed inheritance, began to be discovered. Finally, after a full statistical survey of a long series of experiments with peas, Mr. Yule [2] was able to announce that in the whole field, while Mendelian proportions were in many cases close approximations to the truth, there was a noticeable and constant error; and this, taken together with the admitted exceptions, compelled the belief that the theory, though a useful guide to the farmer, " is inadequate completely to explain all the facts."

What has indeed occurred is, as we shall see in the next chapter, not merely a breaking-down of the isolation of the germ-plasm, but a reaction all along the line against resolving the living organism into an aggregate of pieces of machinery. Physiologists are agreed in realising the close dependence of every organ and element in the individual upon the life of the whole; their researches have established the intimate adjustments by which all functional and structural energies are regulated and the poise of life is maintained. The discoveries which have made the old separation of the respiratory, nutritive, muscular and nervous processes seem arbitrary and unreal have brought the reproductive system within the organisation of the single living body: it is but " one side of a many-sided metabolic activity, of which the different sides are indissolubly associated." [3] The development of the past decade is summed up by Prof. Lloyd Morgan as follows: " (1) a rigid distinction between blastogenic characters of germinal origin and somatogenic characters due to acquired modifications of bodily organs, or their manner of functional action, tends more and more to break down; (2) so-called

[1] Cf. Conklin, *Heredity and Environment*, p. 107, quoting experiments by Davenport and by Tennent.

[2] *Journal of Genetics*, Vol. XIII, pp. 255–331.

[3] J. S. Haldane, *Mechanism, Life and Personality*, p. 79.

infection of the germ may afford the leading clue to the right understanding of inheritance in terms of stimulus and response." Following this clue and maintaining that every cell and chromosome is a centre of biochemical influence to which other cells and chromosomes respond in their mode of action, he shows that " no sharp distinction, still less any separation of ' acquired ' from ' inherited,' can any longer be maintained." [1]

No doubt the process is slow, and particular traits acquired by the immediate forbears are rarely, if ever, exactly transmitted. Ward, after a cautious statement of the case, sums it up by stating : " The repetitions that will suffice to make ' use a second nature ' or a habit automatic for a life-time are very far from sufficing to ensure heredity for future generations. Yet unless the facility and familiarity acquired in a single life-time are transmitted in some—it may be almost infinitesimal—degree, there could obviously never be any transmission at all." [2] He quotes the cases of the shoemaker's son who, " unless he follows his father's trade, has not a shoemaker's lap," and of the " races that habitually squat and sit tailor-fashion on the ground and that have adaptive peculiarities in the hip, lower limbs and foot-joints before birth," [3] to illustrate the contrast between individual and prolonged habit.

Even the fact of recapitulation, once so powerful a support of a materialistic and mechanical interpretation of evolution, has yielded evidence against a rigid denial of use-inheritance. If the germ-plasm is uninfluenced by subsequent developments, if the new type is simply a branch thrown out in due time from its

[1] *Evolution in the Light of Modern Knowledge*, pp. 156–8.

[2] *Psychological Principles*, p. 427.

[3] Quoting Hartog, *Problems of Life and Reproduction*, p. 190. The flint-knappers on the Breck at Brandon have been supposed to present a similar case, but this is at most a matter of hereditary aptitude, not of physical adaptation.

parent stock, then the phases of embryonic growth will reproduce the exact pedigree, and we shall trace not only the general outline but the precise parentage of the fresh form. This was assumed by Haeckel to be the case : it is now universally disputed.[1] In mankind, though there is a general approximation to the ancestral structure, the embryo from first to last is human and unique, revealing nowhere more than a homologous resemblance to any existent forms of life.[2] Indeed it seems clear that though " every part of the human body passes through an extensive series of developmental changes, not one of these copies a form seen in any living animal." [3] Now no one disputes that man has been evolved from a heredity traceable to the simplest living forms, that the main route of his descent is demonstrable. It is unthinkable that none of his ancestors survive : yet, if not, it must follow that the new factors which constitute his distinctness have influenced the whole course of his embryonic development.[4] The new branch has changed the character of the whole tree—a result incompatible with the total isolation of the germ-plasm. The emergence of the human is not a mere addition to a series : subsequent acquisitions have profoundly modified past phases. Evolution remains; every year strengthens our conviction of its truth. It cannot be explained solely upon Weismannist lines.

It is not for a layman to pass more than a tentative

[1] Cf. e.g., *Darwin and Modern Science*, pp. 174–6; Graham Kerr, *Text-book of Embryology*, ii. pp. 490–5, and Marshall, *Vertebrate Embryology*, pp. 24–34.

[2] Cf. Thomson *What is Man ?* pp. 4, 5.

[3] Keith in *Nature*, cxii. p. 267. The attempt there made to represent embryonic development as prophetic, upon which D'Arcy, *Science and Creation*, pp. 29–31, lays such stress seems very precarious; and the conclusions of the lecture are hardly reconcilable with all its contents.

[4] As is admitted by Keith, *Human Embryology and Morphology*, p. 35.

verdict upon a position which can only be weighed by experts; but those who have followed the controversy and been surprised at the ease with which a theory so far-reaching in its effects and so obviously difficult to reconcile with any broad view of evolution was accepted, will realise the significance of the hope now dawning before us. It was hard to accept the complex, the almost incredible, Weismannist interpretation of facts like that of the Kea or of the Cowbirds (*Molothrus*);[1] harder still to keep heredity and environment, race and education in permanently separated compartments; hardest of all to surrender the thought of co-operation with creative effort for the picture of a vast all-controlling and seemingly a-moral deity. If we are indeed delivered from such a nightmare, if our hearts and our heads need no longer be at war, then a new era of confidence for the Church has been begun.

Yet if Weismann's insistence on natural selection is exaggerated, it represents an aspect of evolution which Christians ought to study with profit. When the Epistle to the Hebrews claims that it is congruous for the Creator and Sustainer of the Universe in the training of His human children to make the Captain of their salvation perfect by means of suffering,[2] he points to a valuation of such suffering far higher than we find it easy to accept. Nature may not be merely "red in tooth and claw"; but the fact that pain and death have taken so large a part in progress ought to recall us to the lesson of Calvary. From the study of the Neo-Darwinians we may learn to see the grand pattern of the Cross woven into the whole fabric of the natural order, to revise our easy standards of success and our concepts of real achievement, to rediscover the wisdom of the sage who spoke of suffering as the

[1] Where developing stages of the parasitic habit can be traced in various species, cf. Darwin, *Origin of Species*, pp. 334–5.

[2] Heb. ii. 10.

only true learning, and of the Master who bade us lose life if we would find it. And this, too, is certain. There never yet was a heresy which did not point to a neglect of truth. If we have been slow to recognise our dependence one upon another, if we have magnified the individual and neglected the race, if we have given little meaning to the solidarity of mankind, the germ-plasm theory may point out our inadequacies and help us on a stage towards fulness of understanding. Biological theories have, as Prof. Thomson has so often shown, a constant approximation to the social ideas of their time : is it fanciful to see in Weismann's utter repudiation of the influence of environment and Prussian regimenting of an automaton-like creation the reaction against the Lamarckian economics and revolutionism of Karl Marx? In any case his protest may save us from a social ethic which stresses the importance of surroundings and would equate the Kingdom of God with a kingdom of garden cities. If so, and if it recovers for us a deeper insight into the tremendous but hackneyed conviction that we are "members one of another," it will not have been made in vain.

CHAPTER III

MECHANISM, VITALISM AND EMERGENCE

We have devoted some time to the special problem of use-inheritance, because this definite issue is of critical importance for Christian doctrine and ethics—an importance which has not been clearly recognised. Many Christians, who would reject without compromise the materialistic determinism [1] of Haeckel or the Mendelians, have been prepared to make concessions to a doctrine of heredity which, while not so obtrusively threatening the faith, rendered its position scarcely tenable. This particular issue is, however, only one aspect of a far larger conflict; [2] and the overthrow of the Weismannist doctrine of germ-plasm cannot be separated from the whole revolt against a purely mechanistic interpretation of reality. And it is time that we tried to survey the broad situation as it has developed in the last twenty years. It represents a movement of thought as rapid and, from the Christian standpoint, as hopeful as any in history. Summed up in a sentence, the result would seem to be that " whereas

[1] Materialism is a more appropriate term than Naturalism or Realism to denote the position of those who believe that the whole of our experience, not only physical, but also mental and spiritual, can be explained under the categories of physics and chemistry.

[2] For a brilliant survey of the wide issue cf. Whitehead, *Science and the Modern World*. Having traced the development of materialistic mechanism (pp. 71–4) he sums up : " The world had got hold of a general idea which it could neither live with nor live without." His own position, so far as I am competent to understand it, is singularly attractive.

on the physical side mechanistic conceptions are perfectly adequate, they cannot, without grave logical difficulty, be extended to cover the sphere of mind." [1]

It is not too much to say that twenty years ago the outlook for intelligent Christians was profoundly disturbing. The field covered by the natural sciences was still dominated by a triumphant materialism. If we take the volume of essays [2] published in honour of the Darwin centenary and the fiftieth anniversary of the *Origin of Species*, we shall see at its zenith the planet under which most of us were born. If by that time its influence upon the leaders of research was beginning here and there to wane, there seemed no prospect of relief from it for the mass of educated opinion. Haeckel, who could contribute to it with legitimate pride a swan-song of self-congratulation; Weismann, who was still unshaken in his championship of natural selection; Bateson in the heyday of his enthusiasm for Mendelistic determinism; De Vries putting forward the mutation-theory as a second line of defence if Darwinism in its original form should prove untenable—all these combined to make a mechanical interpretation of the whole creative process almost inevitable. It seemed as if the future lay solely with the chemists and physicists, as if we should have to dismiss as illusion all save the study of the machinery of organisms, as if personality were a shadow and God the shadow of a shade, as if we could only fall back on the cynical conclusion of Sir E. Ray Lankester, and maintain " that there is no relation, in the sense of a connection or influence, between Science and Religion." [3] And around us the

[1] Needham in *Science, Religion and Reality*, p. 250.

[2] *Darwin and Modern Science*, edited by Dr. A. C. Seward, Cambridge, 1909.

[3] *The Kingdom of Man*, p. 63. How generally Christians have adopted this disastrous opinion as an easy means of avoiding intellectual effort can be discovered weekly by a study of the so-called religious Press.

best brains and characters were refusing to accept a faith which, if unrelated to science, could have no basis in fact, and was nothing but an amiable superstition. The policy of Julian the Apostate was at long last to come to its fulfilment. And Christians, if they survived, must occupy themselves with " questions of words and names and your law," while Gallio, Stoic and materialist, took the place long awarded to his prisoner in the estimation of mankind. There is no need for those who complain of the failure of the Church to reveal great leaders at the present day to do more than study the claims and attitude of the natural sciences in the older Universities between 1890 and 1910 : it is not surprising that among honest, intelligent and idealistic students there were few who could persuade themselves to assent to the Thirty-nine Articles.

From the religious standpoint the Darwin centenary was the darkest hour before the dawn. A few giants, and a Cambridge man may be pardoned if he puts James Ward as the greatest of them, " laboured in that cloud to lift it from the world " ; but that their efforts should produce so large and immediate a result, hardly any could have foreseen. To us who were young then, and holding on rather by instinct than reason to the belief that life could not be finally explained in terms of physics and chemistry, the reaction was an experience which we shall never forget. If in 1913 a great biologist could write : " I should as soon go back to the mythology of our Saxon forefathers as to the mechanistic physiology," [1] a comparison between such a statement and the Darwinian essays will reveal the extent of the change.

Before we attempt to trace the development of this revolt and the formulation of a theistic philosophy of

[1] J. S. Haldane, *Mechanism, Life and Personality*, p. 61. To quote this sentence is not to endorse its author's Neo-Vitalism.

evolution, reference must be made to a movement which, even if it yields little permanent result, was largely instrumental, thanks to the influence of its popular exponents in England, in overthrowing the general acquiescence in materialism. Throughout the fifty years of Darwinism there had lived in poverty and constant labour a heroic French naturalist, J. H. Fabre, the "Homer of the Insects." From first to last an observer and a poet, Fabre had resisted the whole conception of evolution on the ground of his studies of instinct [1] in the Hymenoptera and other orders. Utterly devoted to the activities of his little world and tirelessly patient in investigating its inhabitants, he convinced himself that the marvels of behaviour among beetles, bees and predatory wasps could not be explained in terms of survival operating upon fluctuating variation. Here were the various species of *Sphex* paralysing their victims by an inerrant stab to the nerve-ganglia, displaying a knowledge of the internal anatomy of crickets, grasshoppers and ephippigers which a trained entomologist could hardly rival; or the *Ammophila* stinging every segment of its caterpillars; or the *Sitaris*, "a miserable black mite," going through a series of performances any one of which, if unsuccessful, will be the ruin of its progeny; or the *Osmia* adjusting the sex of its offspring to the capacity of the cell in which it shall be laid; or the *Scarabaeus* rolling its ball of dung, excavating its burrow, and surrounding its egg with layer upon layer of food appropriate to the growing appetite of its larva. Such achievements are too elaborate to have been learnt by chance—by the selection of the individuals in which they were most successfully developed.[2]

[1] The intricate problem of the nature and origin of instinct is discussed by five psychologists in *British Journal of Psychology*, October, 1910, by Lloyd Morgan, *Instinct and Experience*, Stout, *Manual of Psychology*, and Drever, *Instinct in Man*.

[2] The testing of Fabre's observations, *e.g.* by Peckham, *Wasps, Solitary and Social*, pp. 28 ff., though it proves that

Nor would education explain it—for each generation dies before the next is born. Nor are the results acquired by trial and error—the insect world cannot learn, and if its instinctive routine is interrupted becomes helpless. Certainly evolution, as preached by Darwin,[1] was inadequate to explain it. What was the inference to be drawn?

Fabre himself was content with vague talk of law, of an implanted quality appropriate to the creature's place in the scheme of things. But his results, set out with a charm of language unequalled in the whole realm of scientific enquiry, exerted as literature an influence which will not lightly pass. Recognition was, indeed, long delayed; but the picturesque figure of the hermit of the Harmas at Serignan, once acclaimed, would not easily be forgotten; and in the turmoil of the time there was one who was quick to recognise and expand his life's work.

Bergson's *Creative Evolution* owes its distinctive appeal and much of its world-wide vogue to the researches of Fabre; for it is largely upon his observations that the philosophy of the *élan vital* is based.[2] Its author's brilliancy of style, which makes his work in its original language more fascinating than romance, and the happy occasion of his book, when the conscience of Europe found itself enmeshed in the coils of

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Ammophila, etc., err in a number of cases, does not make any more probable the development of instinct by natural selection.

[1] Darwin himself gave no biological account of the nature of instinct, and while denying that instincts are acquired as inherited habits and looking to slow variation and natural selection to explain them, does not succeed in accounting for their origin, *Origin of Species*, chap. viii. His successors have not been able to show even a reasonable possibility of a long and interdependent series of actions being developed by selection alone.

[2] Alongside of Fabre's influence, that of the pioneers in the study of the subliminal or subconscious, Liébault and the earlier Nancy School, must be recognised as both important and suggestive.

Neo-Darwinianism and knew not how to break free, supplemented the impact of the *Souvenirs entomologiques*, and gave the authority of a recognised endorsement to all those who were dominated against their will by the compelling logic of the materialists. The Life Force became the cult of the hour : men of letters like Mr. Wells or Mr. Shaw were quick to seize upon its value ; [1] Vitalism, a creed powerful in the 'fifties but discredited by all save a remnant, was resuscitated ; and popular literature, advocating its claims, reached multitudes who had never heard of Weismann. Syndicalism, a violent revulsion against the rationalism of the State Socialists, was in the air ; intuition promised a warmer-blooded life than intellect ; mankind has always trusted its heart rather than its head : here was a philosophy for the time. Christians, who were vaguely conscious that in it at last was a scheme not incompatible with their convictions, hastened to acclaim the offer of salvation. Bergson was hailed as a deliverer.

It is true that calmer reflection has reversed the first too easy verdict ; true that the antithesis between life and matter, as between instinct and intelligence or the subconscious and the conscious, does not stand ; true that the creed of the Life Force can only be formulated in terms of *God the Invisible King*, a God in the Making, a God behind whom stands the Veiled Being, an inescapable and non-moral Necessity, and who struggles and suffers against the obdurate antagonism of Matter. But to those distraught by war, to those for whom life was conflict and suffering, such a creed was preferable to the irony of belief in the Father the Almighty, the Omnipotence who would not stop the holocaust of His creatures. It was so easy to see an analogy between the *élan vital* as described in the

[1] In describing them as Bergsonians due weight must be given to their debt to Samuel Butler (in Shaw's case very large) and to William James (for whom see chapter V).

passionate eloquence of *L'Evolution Creatrice* and that Spirit who in and with man agonises upon a cross of wood [1]; to feel the glamour of discipleship to a Suffering God, the joy of taking part in a contest of which the issue was unknown even in heaven; to throw over the belief that creation and Nature, our sphere of blood and tears, proceeded from the same source as the Christ and His martyrs. Gnosticism has always had its followers: dualism is a good enough creed for the warrior and the pessimist: in its new form an ancient mode met with a ready response; for it gave back to man the essence of Apocalyptic, the romance of living dangerously. To a world which had come to trust in a machine-made progress, to regard evil as good in the making, to accept the unfolding of a dull and pre-arranged plan, came trumpets summoning to battle, a call to be up and doing for life against death, for a God who lived only as men rallied to His cause.

And upon the new age Bergson has had a far-reaching influence. Materialism had gone; Vitalism was the natural alternative: was there any other way open?

As always happens when an established position collapses, there has followed upon the abandonment of Materialism a re-examination and restatement of theories previously held and perhaps too readily rejected. Neither Lamarck nor the early Vitalists had been able to withstand the criticism which the Darwinian age, drawing upon a new armoury of precise fact, had levelled against them. Yet in the darkest days their faith that life could not be reduced to the categories of the mechanical, that the living agent was no mere automaton, but was to some extent at least master of its functioning, had never been without its witnesses; and in the last ten years their central

[1] For the working out of this analogy I may refer to an essay of mine in *Faith and Freedom*, edited by C. H. S. Matthews.

convictions have found strong and elaborate support. The series of Gifford Lectures since 1914, and the volumes of collected essays like that entitled *Evolution in the Light of Modern Knowledge*, testify to the strength of the reaction; and the various and multitudinous works of psychologists, of educationalists and of biologists prove how large the subject has loomed in the minds of scientific enquirers. And some of them are manifestly close to their prototypes. Thus Prof. Driesch, whose work on embryology had made a breach in the fortress of Weismannism, has formulated a doctrine of psycho-physical interaction in terms of entelechies and psychoids which seems little removed from pure Vitalism; and Prof. MacBride, with his emphasis upon evolution as a vital phenomenon and upon habit as determining almost solely its course, is obviously a thorough-going descendant of Lamarck. Many of the others, and particularly Profs. McDougall and J. A. Thomson, are definitely Animists or Neo-Vitalists.

It is not easy for an amateur whose studies have been mainly of history and of religion to keep in touch with so large and, on the whole, so tentative a literature. The threefold qualification as biologist, psychologist and philosopher is in itself uncommon; and only those who are familiar with the three fields can speak with authority. But it is very noticeable that the larger number of popular thinkers look to a doctrine of interaction in which the initiative lies with the psychic, a doctrine which, while steering clear of pure idealism or of pan-psychism, follows the general tendency known as animism or hormism. While few would question the sifting influence of selection, the doctrine of the struggle for existence has been shorn of much of its horror by the emphasis laid upon the survival-value of parental affection, of co-operative and herd life, of symbiosis or the partnership of plants and insects, and upon the effects of selection in fostering

communal life and the elements of responsibility and of a moral sense.[1] The brilliant advocacy of such delightful writers and speakers as Prof. Thomson of Aberdeen has done much to popularise the study of evolution and to free the world of Nature from the utilitarian and pessimistic interpretation placed upon it by the Darwinians. We are encouraged by them to look for lavish beauty, for mutually beneficial adjustment, for increasingly conscious guidance, for steadily developing aspiration. Stress has been increasingly laid upon the element of adventure and purpose in promoting adaptation to new conditions, upon the power of function to fix and modify form, upon the evidences of rudimentary choice in the actions of the lowliest protozoa and upon the presence of signs of intelligent control in the working of what is usually regarded as pure and unreasoning instinct. "Mind" or "will" is accepted as the primary formative force in evolution; and animal behaviour is interpreted from the analogy of human psychology. Such a scheme is not difficult to reconcile with a spiritual, theistic and Christian philosophy of creation. How far can we accept it as valid?

It can be said with some confidence that its criticism of a purely materialistic philosophy seems at present unanswered and unanswerable. The attempt to explain the whole vital process in terms of physics and chemistry has resulted only in explaining it away. Whatever man may be, he is not an automaton: along with the physical organisation of his system—a system whose intricate mechanism, exact poise and subtle correlation of parts have been investigated with magnificent industry—room must be found somehow for concomitant psychic energies which cannot be explained within the scope of materialism. Psychologists may well regard the efforts of the "rigid

[1] Tribute should be paid for this to the memory of Henry Drummond and especially to *The Ascent of Man*, chap. vii.

behaviourists" as the *reductio ad absurdum* of the effort to make mechanistic theories universal. Upon this result we are not likely to go back. Nor is there much probability of the success of any doctrine of evolution which does not give full weight to the evidences of purpose or the influence of function. The attempt to explain every development, from the various wonder of flowers to the pattern of the butterfly's wing or the sculpture of the Hornbill's casque, in terms of strict utility may well be relegated to the dust-bin along with the mid-Victorian ethics of which it was the child;[1] but that use has had its influence, and a great influence, in stimulating and controlling variation, and that such variation can only be studied in relation to the whole life of the organism seems abundantly plain. Nor shall we easily return to *Locksley Hall* for our picture of the natural order: cruelty is there, and the student must not let the appeal of manifest joy and beauty blind him to its reality or to the problems which it raises; but he will face it without the morbidity that would turn the "vernal wood" into a charnel-house and see a reign of terror dominating the activities of its inhabitants.

The difficulty about the new Animism arises rather on two grounds, first its attitude towards comparative psychology, and secondly its philosophical adequacy. Can the effort to trace mental processes and conscious purpose back into the *Amoeba* be reconciled with the facts? Is not the whole of such an interpretation liable to the charge of "pathetic fallacy," of ascribing to the lower levels of life qualities wholly foreign to them, of reading human emotions and human psychology back into creatures whose reactions are, in fact, much less complex and anthropomorphic? And, further, does it succeed in avoiding the objections

[1] For a valuable protest to this effect, cf. Bateson in *Darwin and Modern Science*, pp. 100–1, and the summary of his chapter on Darwinism in Smuts, *Holism and Evolution*, pp. 220–3.

which overwhelmed the older Vitalism? Is psycho-physical interaction a tenable hypothesis?

To those who come straight from the glowing pages of Prof. Thomson, who are under the influence of the *Jungle Book* and have delighted to look for traits of human quality in their bird and animal friends, such questions will come with a sense of chill. To turn from Mr. Ernest Thompson Seton's [1] stories of the Ruffed Grouse or the Chickadee to Mr. Eliot Howard's [2] observations on bird territory and song and courtship is to move from a theatre to a laboratory. The glamour fades, and in its place is an inhuman and, at first sight, soulless science. The habit of years makes it almost impossible to watch a nesting bird without interpreting its actions in terms of spiritualised emotion and deliberate planning for the future. So strong is this tendency that when it is challenged one cannot but wonder how far subservience to it has actually suggested observations which, dispassionately made, might have lacked just those elements which have most sentimental value.

This difference of approach, and with it the problem as to how far we are justified in interpreting animal behaviour in the light of our own feelings, is well illustrated by a matter which was one of the chief pillars of Darwin's theory, the matter of Sexual Selec-

[1] Cf. *Wild Animals I Have Known*, etc.

[2] *Territory in Bird Life*, a wonderful testimony to the value of accurate observation of familiar facts and species. At the same time, it may well be doubted whether the theory of territory is universally true. Miss Turner's words should be weighed by every comparative psychologist: "There is nothing on earth more irresponsible than a bird. I have never found two birds of the same species behave in the same manner; therefore I hope that I have avoided the great pitfall of ornithologists—generalisation from the behaviour of a few birds of one species" (*Broadland Birds*, p. v). My own experience, trivial beside hers, leads me to endorse this both as to territory and courtship.

tion. As already noted, Darwin [1] laid great stress on the influence of the female's susceptibility to explain the development of male ornament. He assumed that the displays of such birds as the Peacock or the Great Bustard were deliberately calculated to appeal to the hen's favour; that the birds most highly adorned and most skilful in showing off their charms would secure mates and hand on their endowment. Wallace at once criticised this on the ground that it ascribed too highly developed an aesthetic taste to the females, and a taste so exacting that the male plumage and posturing became, in fact, rigidly standardised. Further and fuller study has on the whole overthrown Darwin's contention. It was originally based upon polygamous birds, and is now supported solely by the case of the Ruff (*Machetes pugnax*). In this species Mr. E. C. Selous' oft-quoted observations prove that the female does, in fact, choose her mate.[2] The males display together, and until she appears spar vigorously. At her coming they remain motionless, crouching down so as to show the coloured ear-tufts and breast-shield, but making no attempt to follow or molest her. The Ruff is unique in that the males vary almost infinitely: their nuptial feathers range from black to brown and red and buff and white; the ear-tufts are often different from the shields and the feathers of the back are coloured like the latter. In this case it might be argued that the male's ornament influenced the female's preference.

This species is, however, entirely exceptional. Few other birds are similarly promiscuous in their sex-habits, and none display so unfixed a variety of hue. That Darwin's theory is generally inapplicable is proved by such studies as that of Mr. Eliot Howard on the Warblers. He has shown that the display which for Darwin existed in order to attract and win

[1] *Origin of Species* (ed. 1900), pp. 107–10.

[2] My own observations in Texel during the past three years confirm his account.

mates, actually takes place in monogamous species after the two birds have occupied a territory, and when there is no sort of competition. If so, it is argued that such performances are simply a phase of courtship, an incentive to pairing, a pantomime of sex-hunger.[1] In certain species this seems highly plausible: the postures may well be suggestive, like the erotic dances of primitive tribes. But in others it seems equally far-fetched.[2] The act of pairing might be intimated by the Pigeon running after his mate with jerks of his head and depressed and outspread tail, or by the Mallard bowing before the duck and swimming in circles round her. But what direct stimulus, indeed what connection with the sex act, can be assumed in the fanned wings of the Argus Pheasant, or the "clappering" of the Stork, or the earthward tumble of the Lapwing, or the rigid neck and backward splash of the Goldeneye? They are expressions of the male bird's *joie de vivre* and of the strong current of his vitality. They are in some cases adapted to bring into prominence his special beauties of form or plumage. In many they are not even particularly connected with pairing, but are habits practised at other times and by immature and non-breeding birds.[3]

As far as concerns the doctrine of Sexual Selection, observation on strict scientific lines has almost entirely disproved it. It is altogether too much coloured by human imagination. Mr. Howard has certainly justified those who refuse to go beyond the facts. But his interpreters are in danger of going to the other extreme. If Darwin gave the birds almost human susceptibilities, his critics seem to treat them as automata, whose behaviour is mere routine, utilitarian in character and

[1] As *e.g.* by Pycraft, *Camouflage in Nature*, p. 232.

[2] Cf. Prof. J. Huxley on "Courtship Activities," in *Journal of Linnean Soc.*, Vol. 35, pp. 276–7.

[3] So Coward, *Birds of the British Isles*, iii. pp. 170–1. My own observations bear out this conclusion.

as mechanical as that of the insect world. No doubt different species and even individuals vary in the extent to which their instinctive actions are fixed. In some the habits are stereotyped which in others are capable of voluntary adaptation.[1] In any case we shall make no progress unless we can study other orders of life objectively, making sure of our facts and interpreting them from the standpoint of the creature itself, so far as we can discover it, not of ourselves.

It may be well to add a more striking instance to prove that Mr. Howard's refusal to "humanise" his subjects is on the right lines. It is familiar ground, and would be admitted by the most ardent Animists, that in the insect world the marvels of instinct are hardly more striking than its limitations. The *Sphex* walling up its burrow, though it knows that its egg and prey have been removed,[2] the Processionary Caterpillars, marching on for days round the rim of a vase rather than break the circle[3]—innumerable instances demonstrate that the whole performance is governed by routine and cannot be adapted intelligently to meet unusual circumstances.[4] But higher up the scale—in bird life, for instance—such limitations are less familiar, and when they occur are hailed as mysteries. Thus pages of ejaculations have been printed to express astonishment and horror at the mother-bird who not only allows the young Cuckoo to destroy her brood, but rewards the assassin by assiduous and ill-requited labour. Here is a case where, interpreting as the Animists would have us from the analogy of human mentality, we look for, and usually find, evidence of devoted maternity. The solicitude of the brooding bird, her care in turning and

[1] Cf. note at end of chapter for an instance of this.
[2] Fabre, *Insect Life*, p. 171.
[3] Fabre, *Wonders of Instinct*, pp. 134–46.
[4] For the limited extent to which modification takes place cf. Bouvier, *Psychic Life of Insects*, pp. 125–39.

covering her eggs, her skill in feeding the nestlings, her anxiety in defending them from disturbance surely guarantee that we may conceive of her as wrapped up in their welfare, as picturing, however dimly, their advent and growth, as dreaming and loving like a human mother. How then explain the following? [1]

A Redstart had hatched her brood and a young Cuckoo, and for two days all was well. On the third as she was sitting, the observer, my friend M. Burdet, noticed a sudden restlessness: master Cuckoo was no doubt fidgeting beneath her. She changed her position once or twice, and had settled down as best she could, when alongside her neck, under her very eyes, was thrust one of her chicks. It was jerked out, rolled down the outside of the nest and lay gasping and helpless a few inches away. And the mother, for all her devotion, took not the slightest notice, settled down in comfort and left her baby to its fate. Suppose her possessed of any anticipatory plan, endow her motherhood with human feelings, and her apathy becomes inexplicable; for she had only to stretch out her beak to rescue her offspring. Within the limits of her routine she is admirably equipped: the chicks require warmth; she will brood for hours while they lie beneath her: it is feeding time; food shall be faithfully provided, be the recipient her own or the parasite: if her duties are interrupted, she will flutter round eager to resume them. But let the unexpected happen, let her young be thrown out from beneath her, that is no concern of hers. It is her time for sitting: she will sit; rescue-work is not in her programme.[2] It is all perfectly simple, if only we refuse to measure her mind and emotions by our own.

[1] This case is briefly reported in *Levende Natuur*, April 1925. I have seen the film taken during the incident. A similar ejection of an egg from beneath a sitting Meadow Pipit is mentioned by Chance, *The Cuckoo's Secret*, p. 213.

[2] This limitation appears to be confined to nidicolous birds. Where the chicks are active, the parents rescue them readily. M. Burdet has a film showing a hen Montagu's Harrier lifting

We have dwelt upon this matter of animal psychology at some length because our explanation of their actions has a direct bearing upon our theory of evolution. If there is evidence of "mind" in every organism, however lowly, of plan and conscious control at all levels of life, then a doctrine of psycho-physical interaction, of psychic influence upon physical development, of Animism can be accepted without much demur: for we can set "mind" outside the evolutionary process, regard it as unique and creative, and accept a definite dualism.[1] Such a theory has undoubtedly commended itself to a wide public, and the Christian apologist has much reason to wish it established. It has a long, though not universal,[2] tradition behind it, and supplies a simple basis for belief in personal immortality. But this makes it the more necessary to scrutinise its freedom from error, and to pay serious heed to the drastic criticism to which it has been subjected.

The most important of its opponents, and the man who is perhaps best qualified to formulate a comprehensive scheme of evolution from his work as scientist, psychologist and philosopher, is Prof. C. Lloyd Morgan; and his two sets of Gifford Lectures, published as *Emergent Evolution* and *Life, Mind and Spirit*, contain the statement of a position which many students will hail with gratitude and defend with conviction.[3] Few books of recent date show so

back by its wing into the nest a two-days-old chick which had strayed from it.

[1] Cf. quotations from McDougall below.

[2] The great Greek theologians, like St. Paul, adopted a tripartite division of man's nature into body, soul and spirit.

[3] A similar position has been advanced on the metaphysical side by Bosanquet, *Individuality and Value*, pp. 189–91, Pringle-Pattison, *The Idea of God*, pp. 94–109, Alexander, *Space, Time and Deity*, Vol. II, pp. 52–63, Taylor, *Evolution in the Light of Modern Knowledge*, pp. 429–76, and Whitehead, *Science in the Modern World*, pp. 135–8, 152–7. The estimate of Lloyd Morgan's work here given is fully endorsed by Matthews, *God and Evolution*, pp. vii and 20.

generous a spirit in the criticism of others, so balanced and comprehensive a scope, or so modest and unassuming a statement of a novel and most interesting conclusion.

Their author is, as we have stated, slow to criticise, content rather to put on record an alternative exposition than to condemn those from whom he differs. Yet his demurrer to the easy animistic hypothesis is not hard to discover; and it follows a line with which the thought of to-day and the observer of animal life are in strong sympathy. The basal weakness of Animism is its failure to explain mental evolution except by finding or assuming analogies from human experience throughout organic life. If we take a characteristic exponent of the theory—Prof. McDougall, for example—the difficulty of his doctrine is manifest. "The function of cognition is absolutely unique, we cannot hope to explain it in terms of any other;" "mind or purposive striving is the essentially creative agency;" marks of purpose can be discerned in the lowliest organisms: "the only remaining possibility of assigning to mind the creative rôle which would seem proper to it is (so long as the Lamarckian hypothesis is untenable) to assume that the germplasm itself, or the reproductive cells, have enough of mental activity to produce the variations upon which the selective processes must be supposed to operate and without which they can produce no evolution."[1] A theory which ascribes the motive power in evolution to the mental activity of the germ-plasm is justly described as "reminiscent of primitive mythology";[2] for the observations upon the behaviour of protozoa on which Animists lay such stress do not justify any such explanation as would ascribe mentality to them.[3]

[1] *Evolution in the Light of Modern Science*, pp. 341–54.
[2] Lloyd Morgan, *Modern Churchman*, Vol. XIV, p. 292.
[3] Jennings, *Contributions to the Study of the Behaviour of Lower Organisms* refutes Loeb's theory of pure tropism, and

But if the facts on which Animism is based are open to serious criticism and to the suspicion of being exaggerated in order to fit the theory, its inferences from them are equally unsatisfying. It is admittedly dualistic; mind and body, the psychic and the physical, stand opposed to one another as the mover to the moved; the former guides the latter, initiating, controlling and shaping its processes. This is simply the old Vitalist hypothesis restated; and as such, as has repeatedly been demonstrated,[1] is open to little support and to quite insuperable objections. Mind-energy is just another name for Vital Principle or Life Force: "where and how 'vital force' acted on the atoms or molecules, or what exactly became of them no one could say": [2] theories of the direct operation of life within the sphere of physics and chemistry either bring life under a lower category, representing it as in some sense itself physical, or involve a confusion between the material and the non-material for which the evidence is highly precarious. Further, continuity is sacrificed and there is no real evolution at all, unless not merely trees but crystals, molecules, atoms, electrons are all credited with mind; [3] otherwise the animate is represented as controlled by one type of agent, the organism's "mind-energy," and the inanimate presumably by another. Is this other mechanistic? Finally such dualism is opposed not only to the pro-

proves a simple method of "trial and error." He speaks of "beginnings of intelligence," p. 252, but safeguards himself against assigning anything that can properly be called intelligent—a point often overlooked by those who quote him.

[1] *E.g.* by Haldane, *Mechanism, Life and Personality*, pp. 22–30, who is himself regarded as a Neo-Vitalist by Needham, *Science, Religion and Reality*, pp. 237–44; or by D'Arcy, *Science and Creation*, p. 65: "The Vitalist is the Modern Manichean."

[2] Haldane, *l.c.*, p. 63. Cf. Whitehead, *Science in the Modern World*, p. 150.

[3] As is done *e.g.* by J. A. Thomson, *Science and Religion*, pp. 44–6.

found religious conviction which demands a monistic interpretation of the universe, but to the wholesome tendency of the best thought, which refuses to split up the individual into two interacting centres of energy, and struggles with whatever difficulty to see him as one and indivisible, to start not from a duality of elements, but from the datum of a single compacted personality. I am myself, body, mind and spirit, and I function as a unit, not compartmentally. Between the physical and the psychic there is not just a loose alliance permitting interaction, but an absolute correlation, as of two concomitant aspects of a single whole. We may be driven by the exigencies of language to personify mind and body, to speak of them as warring or co-operating agents, and to describe our experience (as does St. Paul) in terms of such dichotomy: but the picturesque familiarity of the phrases must not blind us to the fact that, strictly speaking, the conflict is within a single "me," that the "I" is never either whole mind or whole body, and functions in and through both at once. An organism must be treated as a whole: we may interpret its activities in terms of physiology, of stimulus and response, of sense organs and neurone routes, or in terms of psychology, of cognition and reference. These two categories do not necessarily exhaust the contents of the self: they are modes of describing a reality which itself transcends them: but to confuse the two, representing mind and body as playing a perpetual game of Box and Cox, is to create problems for the scientist and for the philosopher which seem frankly insoluble. "All action of whatever kind, which happens between mind and body in human personality, is to be traced to and ultimately accounted for by the holistic personality itself."[1] The truth behind mechanistic interpretations is that they are rightly and solely employed to describe the

[1] Smuts, *Holism and Evolution*, p. 272.

physical aspect of the organism, but that alongside of and everywhere concomitant with this aspect are others which mechanism is unable to explain.

A theologian may perhaps be permitted an illustration from his own field. In Christology it is plain that the datum is the fact of Jesus, in whom, as the Church believes, Godhead and manhood are manifested concurrently. The history of doctrine is full of attempts, like those of Athanasius or of Leo, to represent the two Natures as interacting, to ascribe some of His activities to the human and others to the divine; and this separation of the two is, by leave of the two saints and their followers, in fact Nestorianism and in effect destructive of a real Incarnation. Scarcely less common are the theories which describe Jesus in terms of one Nature alone, either of the human, in which case we have pure Ebionism, or of the divine, when the result is Gnostic or Apollinarian. Scholars have lately begun to realise (and this is at least compatible with, if not intended by, orthodox formulae) that our faith is in the one Person who is at once and always both human and divine; that the life of Jesus can be described both as a story of Manhood and as a manifestation of Godhead; that the two Natures represent the two points of view from which one and the same Being can be studied, and are, as the Creed of Chalcedon declares, "inconfusedly, unchangeably, indivisibly, inseparably acknowledged." In the study of Jesus the first task is to discover the facts, to collect data, as the student must, with all the care and accuracy at his command. These facts the historian will interpret in terms of human history, as the physiologist interprets an organism in terms of his own science. The theologian will act otherwise, and from the same facts will construct, as best he can and from whatever analogies religious experience can furnish, an account of the character and energy of God, apprehending and, so far as it may be possible

to do so, expressing in metaphor and symbol the eternal reality unveiled by the earthly story. It is not that certain of the facts are human and certain divine: though the divine will be more richly revealed in some than in others, the facts are the same from whichever standpoint they are studied: the two stories, if faithfully told, will each include all the facts and will each be equally true—though they will be couched in totally different language, and the second can only be told in full when we learn the speech of eternity.

Such an example may make clear the line of Dr. Lloyd Morgan's thought—and perhaps illustrate its value for the fundamental problem of religion. To summarise it adequately, doing justice at once to its scope and its proportion, is no easy task. But it seems so much the most satisfactory "schema" yet propounded that an attempt must be made to condense it.[1] He writes of it as a whole: "The emphasis falls on the belief that spiritual agency is one and indivisible—operative always and everywhere—manifested in life and mind, yes; but also in the evolutionary foundations from which first life and then mind have emerged. It receives phenomenal expression in all that is susceptible of naturalistic interpretation. All that we call natural is due to one agency within one coherent plan and has spiritual significance in God."[2] To comment upon such a passage will be to set out an outline of his philosophy. We may do so under three headings.

(1) *Naturalism.* We are concerned as thinkers with the "plain tale" of the data of experience, and it is

[1] It is obviously close to that put forward by General Smuts in his recent volume *Holism and Evolution*, closer, I believe, than his note on p. 321, referring only to *Emergent Evolution*, suggests. Smuts' book only came into my hands when these lectures had been written. As an independent interpretation it is both significant and valuable. Its chief contention emphasises a matter constantly stressed here.

[2] *Modern Churchman*, Vol. XIV, p. 292.

our business to tell it as objectively as we can, avoiding the temptation to "interpret events in terms of concepts appropriate to a higher level if they can adequately be interpreted in terms appropriate to a lower." [1] Of these data we find, at least when organisms appear, that two stories "can always and everywhere be told: the physical story and the psychical story are concomitant; each must be set out in the terms proper to itself." [2] But the activity which the two describe comes from one indivisible source, the living organism.

(2) *Emergent evolution.* As observed, within the space-time frame there is a record of progressive development from the atom to the saint. "Continuity of process and the emergence of real differences —these," says Prof. Pringle-Pattison, "are the twin aspects of the cosmic history." [3] Although strictly continuous, seven stages or levels of emergence can be traced.[4] At each of these, existing stuffs combine and a new substance, not merely the resultant of the sum of that stuff, and unpredictable before the event, emerges.[5] These seven are (*a*) Atoms: proton and electrons as items of stuff go together on a determinate plan in substantial unity, (*b*) Molecules, the smallest portion of a liquid or gas which has all the properties of the whole: it consists of atoms, but a new substance emerges from their combination. (*c*) Solids: when molecules are arranged in a particular way a solid, be it quartz crystal or colloid, emerges on a fresh

[1] *Life, Mind and Spirit*, p. 61.

[2] Cf. *Emergent Evolution*, p. 62. "And here my cry is Back to Spinoza," cf. *Ethics*, Vol. II, 13.

[3] *The Idea of God*, p. 103.

[4] For a similar classification of levels cf. Smuts, *Holism and Evolution*, pp. 106–7.

[5] A reference to *Abt Vogler* is inevitable:

"And I know not if, save in this such gift be allowed to man,
That out of three sounds he frame, not a fourth sound, but a star."

level of evolutionary advance. (*d*) Life, a new substance probably constituted in a manner analogous to that of other emergences: "A critical review of physico-chemical processes as they occur in integral entities, increasingly favours the concept of step-like advance with the sudden appearance of *new* characters. Hence there arises at some stage a substantial difference which still justifies a valid distinction between the living and the lifeless. But it is a distinction that has arisen within one natural order of events." [1] At this primary level of life there is no evidence of conscious guidance: the acorn or the amoeba or the embryo are alive, but nothing that can be credited with cognitive reference or properly called "mind" has yet emerged.

(*e*) Mind: out of organisms characterised simply by "behaviour" emerge those which display conscious guidance with "orientation towards what we may broadly speak of as the animal or infantile forms of naïve pleasure." [2] At this level there is cognition and the "conditioned response" learnt by trial and error: birds and the lower mammals learn by experience, but there is not yet proof of more than an immediate end in view. We must be on our guard against ascribing to them a fully developed "plan in mind."

(*f*) Reason: a new level is reached when with the Quadrumana [3] or the child of three out of the stuff of conscious guidance emerges rational procedure, anticipation and reflective thought, and "new forms of pleasure of a much richer order." [4]

(*g*) Spirit: out of the stuff of rational, aesthetic and ethical values there emerges in certain human beings spiritual value.[5] "Individual spirits are the items of stuff that constitute the spiritual community, and the

[1] *Evolution in the Light of Modern Knowledge*, p. 114.
[2] *Modern Churchman*, Vol. XIV, p. 290.
[3] Cf. *e.g.*, Yerkes, *Almost Human*.
[4] *L.c.*, p. 290.
[5] Cf. *Life, Mind and Spirit*, p. 307.

efficient presence of God is its Spiritual Substance in indivisible unity. . . . In the chord of His richer Personality our limited personalities are subordinate notes. For the essential feature of personality" (which is here contrasted with individuality [1]) "is substantial unity in its richest expression." [2] "The Divine Personality shines through the Unique Individuality of the Christ." [3] "If an impartial historical survey should lead to the conclusion that the nisus towards deity has culminated in one unique individual, there is, so far as I can see, nothing in the naturalistic interpretation of emergent evolution which precludes the acceptance of this conclusion." [4]

The principle of emergence, of which the appearance of these new levels of substantial unity gives striking examples, is of course not confined to them, but is characteristic of the whole cosmic process. Thus Prof. Whitehead writes: "The organism is a unit of emergent value, a real fusion of the characters of eternal objects, emerging for its own sake." [5]

(3) *Theism.* "Emergent evolution is the expression of divine activity, which alone gives the determinate plan of events, and is to be conceived as *omnipresent* and manifested in every one of the multitudinous entities within the scheme. God, if in any, is in all, without distinction of entities." [6] We cannot rightly speak of divine intervention at particular points; for the whole process is within the divine purpose: nor can we speak of natural and supernatural spheres if we mean to imply the existence of diverse orders of being: we must reject *au fond* all radical dualism or pluralism. "Divine Purpose is inclusive of *all advance*

[1] Cf. *Life, Mind and Spirit*, p. 309.
[2] *Modern Churchman*, Vol. XIV, p. 293.
[3] *Life, Mind and Spirit*, p. 313.
[4] *Emergent Evolution*, p. 31.
[5] *Science in the Modern World*, p. 157.
[6] *Ibid.*, p. 13.

—physical, vital, mental, social and in spiritual regard." [1] "God is All in all, but *in diverse modes and degrees of manifestation.*" Just as in interpreting the activities of an organism, there are "two stories" to be told, and these two are unreservedly concomitant, so, if we could tell it, there would be of evolution both the naturalistic story and, correlated absolutely with it, the spiritual story. To interpret the latter aspect we can only proceed by metaphor and mythology, and wholly inadequately; for we are within the Time-space frame; and this story is of eternity.

It is not yet possible to define precisely the points in organic evolution at which the last four emergences take place. Broadly speaking, they are, no doubt, correlated with the development of physiological structure—with a nerve-net, with a synaptic nervous system, and with the frontal cortices of the brain; but on each level the frontier cannot be rigidly drawn. The general principle does not depend upon whether (say) a starfish falls into class (*d*) or (*e*), or at what point in the life-history of mammals or possibly of birds there is evidence of prospective reference and of anticipatory plans. Close and scientific observation and further study of psychology and neurology may make more precise stratification possible in the future.

The nature of such emergence can obviously be scrutinised most adequately in human life; and the conditions of its appearance have to be considered from three points of view, corresponding to the three-fold nature of man as body, soul and spirit. The physiological and psychological development of the organism provides the constituent stuff: the new substance comes into being with apparent suddenness and spontaneity. Creative achievement, the burst of discovery after hard intellectual struggle, the rush of artistic vision when the poet or painter experiences

[1] *Life, Mind and Spirit*, p. 306.

inspiration, the joy of freshly-realised achievement in the man of action—these supply analogies by which the first exercise of what is commonly called instinctive power can perhaps be best explained. The emergence is a " gift from the determinate mind-plan which makes us what we are rather than ours through any conscious guidance at the time-being." [1] " What comes by nature is in my belief a divine gift, manifested in others and revealed in oneself in the determinate advance of natural events. Emergent evolution is from first to last a revelation and manifestation of divine purpose." [2] " God is the Nisus directive of the course of events." [3]

Stated roughly and in simple terms, the conception thus outlined involves the belief that the ground-plan, that which is given by nature, not by nurture, and which is characteristic of the race rather than acquired by the individual, is ultimately determined by the divine activity of which the whole process is a manifestation, though in the development of this plan every stage is conditioned by the organism's activities. The particular entity receives this plan as its inheritance and develops it by functioning as a living agent, experiencing as it does so the emergence of new levels of integration, and transmitting what it has received as modified by its own development. If we could see the whole scheme, we should find it one, consistent and continuous, a real evolution. Just as the study of embryology has thrown light upon the origin of a species, because every organism recapitulates the chief phases of its ancestral development, so the course of psychic history from bare life to cognition and to purposive planning can be traced in the early phases of growth. Take the case of a human being : from conception onwards the plan of its life develops up through the stages of embryonic growth, where cell-

[1] *Life, Mind and Spirit*, p. 142.
[2] *Ibid.*, p. 145.
[3] *Emergent Evolution*, p. 34.

formation proceeds according to a determined sequence, but as an activity of the new individual. We are tempted to describe it either in terms of mechanical cytology or as the outcome of mental energy and the individual's dim but evident purpose. Both are incomplete, and the second plainly exaggerative. What we see is life on its lowest level, a living thing behaving without conscious guidance under primary stimulus and response. The child is born, entering a different environment, that is enlarging its sphere of reactions, but carrying over from its preceding phase its entity and its behaviour. It gropes for its mother, but there is no evidence yet of cognitive reference or what can properly be called "mind." It moves and sucks the breast as it digests or breathes, or as, before birth, it grew through the continuous months from cell to baby. But development is taking place all the time: the life is becoming more complex; conscious guidance and learning by experience appear in a day or two; mind emerges, and when at about eight weeks old the infant experiences clear vision with the focussing of the eyes, progress is apparent. It is not necessary to invoke an inherited racial memory to explain these early instinctive activities any more than it is to account for the growth of bone and muscle tissue: the whole proceeds according to plan—but not the baby's plan—until use begins to take a formative part, nurture co-operating with nature. Then at about two and a half years reason emerges and anticipatory plans are added to the simple future reference of earlier days: the child has reached a new and far more complex level of evolution. Finally, in some, if not in all, and at a phase of development which we shall have to consider later on, there appears the characteristic emergence of the spiritual; the divine activity of which we believe that the whole process is a manifestation becomes in some sort directly apprehended; God is now a recognised factor in environment; individuality, which has

been enlarged at each level, now reaches its highest growth in personality, in that surrender of itself to the eternal which is at once self-abandonment and self-realisation, in that gift of the Spirit which is, here and now, life " in the heavenlies." From embryo to saint is man's Pilgrim's Progress; if we could see it whole and complete, we should resolve the antithesis of organism and environment, of nature and nurture, of freedom and determinism, of process and deity.

Such a scheme, if we may take the analogy of emergence in our own experience as a guide, leaves to the organism a measure of power to condition the gift. In the first rapture of achievement what strikes the thinker or the artist is the unexpected suddenness and novelty of that which has come to him : he is apt to forget in the wonder of it the years of patient study, observation and effort. Those who have put on record the mode of their creative activity can only speak of it in the language of inspiration.[1] " There is testimony to the external or environmental stimulus, to the overwhelming possession and loving compulsion of the creator by the creative impulse, to the unself-conscious character of the operation, to the sense of wholeness and indivisibility in the perfect finished thing, to the ecstasy and sense of uplift in the completed toil." [2] In somewhat similar though less elaborate language Prof. Lloyd Morgan describes the achievement of the Warbler in building its first nest [3] or of the Swallow taking its first flight.[4] In all such

[1] Cf. the very interesting statements collected in Simpson, *Landmarks in the Struggle between Science and Religion*, pp. 61–74; or *e.g.* Dostoevsky's account of the composition of his works, Koteliansky and Middleton Murry, *Dostoevsky*, pp. 20–6, 71–6.

[2] Simpson, *l.c.*, p. 73.

[3] *Life, Mind and Spirit*, p. 143. Cf. J. C. Squire, *The Birds* :

> " Each little ministrant who knows one thing,
> One learnèd rite to celebrate the spring."

[4] *L.c.*, p. 151.

cases the new integration is not simply the resultant of previously existing qualities: there has emerged a substantial unity of an altogether novel kind. And the supreme experience of such unity is life "in the Spirit."

Note on Instinct

The whole problem of "instinct" in the popular sense is not only so fascinating in itself, but so important for a right philosophy of evolution that a note upon it may be required lest we appear to dismiss Bergson and the new Vitalists too cursorily.

As manifested in insects and spiders, we have admitted evidence of a very elaborate routine, each phase of which is dependent for its value upon the whole. And this is performed without any possible aid from experience or education.

The two main problems for discussion are the following: (A) Does instinctive behaviour give evidence of conscious purpose in the organism? (B) If not, can we ascribe its plan to an innate racial memory? The two are not wholly separable: but a few remarks upon each may clear the ground.

(A) *The Plan and the Performer*

Mention has already been made of the classic observations of Fabre and of the repetition of them by others. By the kindness of my friend, Dr. G. T. Bennett, Sc.D., F.R.S., I am permitted to print the results of his long and careful observations of the web-making Spiders. He writes: "What is so striking in the making of the web is the inflexible strictness of the constructive scheme in kind and in sequence, and yet the elasticity of detail (peripherally) in the fitting of the normally-patterned web on to the infinitely various environment. Rigidity and adaptability go hand in hand. On the whole I have a feeling

that the spider works by a *code*—a set of rules adequate to meet all ordinary cases. Yet with this feeling I get *no* impression that the *workman* is also the *engineer:* I do not picture the spider (or her predecessor in an earlier age) as having composed these cleanly sufficient rules.

"In some respects the 'niceness' of the work is overpraised. Some observers (of the too ecstatic sort) rhapsodise over the repair to the web after the damage caused by a caught fly. I can say for certain that a good deal of this damage is often done by the spider herself in her hurry, and that the repair is generally a very 'botchy' business, just a rough lacing, like very bad darning.

"As a geometer the spider has a very good feeling for *angles;*[1] but I feel doubtful about lengths, except as a matter of reach. The rule for the laying of radii would run something like this: 'Face outwards from the centre, feel for the angles and pick out a big one. Lay a new radius inside the angle by travelling out along one leg of the angle, then along the boundary a bit, tighten and seal the thread, and return along the new radius. Continue this till no angle is wider than a moderate fly held at arm's length.' And the rule for laying bridges (which I am well satisfied to understand, and which would take a page to formulate clearly) also turns, I feel sure, on the discrimination of angle, though its function is to economise length. Does the spider know that when it lays a bridge it is forethoughtfully guarding against waste of length of radii? I feel extremely doubtful."

Such an account, given without any knowledge of the views which I myself held, and corroborating the whole position of a ground-plan or code, given rather than acquired, is very significant. The origin of the

[1] The "sense of angles" appears to play a large part in insect life, notably in finding their way; cf. Cornetz, *Les Explorations et Voyages des Fourmis.*

code, like the origin of the vertebrate eye, cannot be regarded as satisfactorily explained either by the theory of natural selection or by that of individual mental energy.

(B) *Innate or Racial Memory*

As an explanation of the transmitted knowledge of the code, if not of its origin, few theories are more attractive than that which suggests that the newly-born is equipped with certain capacities inherited from the experience of the race. Prof. Lloyd Morgan deals at length with this from his observation of newly-hatched chickens.[1] An instance from my own experience will show how easily such a theory can be formulated. I was watching from my tent the hatching of a brood of Black-tailed Godwits one very hot morning in Texel. When I arrived, one bird had left the nest, two were sitting in it with their down just drying, the fourth was still in the egg. The old birds ran about in the grass some ten yards away to my right, and presently the two youngsters who were panting in the sun left the hollow in that direction. At eleven o'clock the last chick thrust his way out of the shell; within a quarter of an hour he had faced in the direction

[1] *Life, Mind and Spirit*, pp. 112–19. The theory so ingeniously argued by Samuel Butler, *Life and Habit*, and *Unconscious Memory*, and restated more precisely by Semon, *Die Mneme*, identifies the " code " which governs both embryonic development and instinctive behaviour with racial memory. The mechanism by which such memory is transmitted, Semon's engrams, is not very precisely defined. The theory involves a thorough-going Lamarckianism, and possibly on this account has hardly received adequate consideration. But to employ the word " memory " in such a connection is to introduce associations against which there are grave objections, *e.g.* is it memory which controls crystal-formation? and if not, is not this more closely analogous to animate growth than is a human and mental process? Butler's unconscious memory is not far from being a contradiction in terms: Semon's engrams are doubtfully identifiable with memory.

of his parents, and with down still wet scrambled awkwardly to his feet and pushed into the long grass towards them. Surely here is innate memory of the mother's call and anticipation of her care. That was the obvious explanation. Yet other factors are worth noting. The nest-cup was in the glaring heat. Young birds, as I have often observed, grow restless under direct sunbeams and almost at once wander off till they find shade. The older chicks had left, perhaps accidentally, in this direction which was, in fact, that to which they faced; probably they had left scent or traces of their going. Brooding birds frequently call before settling down on their eggs. Just before hatching these calls may be heard by the brood and be associated with a sense of warmth and the scent of the mother. In view of these considerations, such a case cannot be held to prove or even suggest that the memory, if existent, came from racial inheritance.[1]

In any case the theory of memory would not account for the development of an elaborate routine, where, as in the vertebrate eye, the result depends on the due co-ordination of a number of factors, whose simultaneous appearance is necessary for its fulfilment. In the case of insects at least, such routine would appear to be determined in exactly the same way as the various stages of their metamorphosis. Is it memory which guides the procedure of a caterpillar in its change of skin, or in the choice of food plant, or in the fashioning of its cocoon? If not, there is no need to invoke it to explain its behaviour as an adult. Its code is as much part of its physical and psychic constitution as the phases of its growth from egg to larva and pupa and imago. It is very doubtful whether, in

[1] In birds the strongest evidence would seem to be that furnished by the facts of migration. A. L. Thomson, *Problems of Bird Migration*, after a very full statement of the data, favours a theory of inherited memory, but recognises its difficulty (pp. 299–301). It is not unfair to say that he does so rather because no other explanation commends itself than from any clear positive evidence.

our present state of knowledge, we can say more than that "the beast is built that way"—though in certain small areas of the field we get glimpses of the possible steps by which the evolution of the whole has been reached. We are certainly very far as yet from being able to give a complete or dogmatic exposition of the plan of events; and the theory of racial memory is best regarded as "not proven."

We may well conclude this note with reference to a suggestive illustration of the operation and limits of instinct at the level where it is manifested alongside of less rigid and more clearly intelligent behaviour. The best case with which I am acquainted is perhaps that supplied by study of the habits of birds of the order Ardeiformes—the Bitterns and Herons. In the Common Bittern (*Botaurus stellaris*), a specialised and possibly primitive type, there are two pieces of routine which are significant. For the former I am indebted to the observations of my friend, Heer A. F. J. Portielje, Curator of the Natura Artis Magistra at Amsterdam.[1] The Bittern when threatened throws itself flat on the ground, with its wings half-spread and its neck drawn back, the head laid between the shoulders and the bill pointing upwards. If a man or dog approaches it, the whole bird suddenly stiffens itself shooting forward and striking at the eyes of its foe. If, however, the enemy does not present to it the shape of a head attached to a body—if, for example, the man draws his coat over his head so as to disguise its form—the Bittern is bewildered and does not attempt to attack; it will not aim at his hands or arms. Its mode of defence is rigidly limited to the thrust at the face. So too in its tactics of concealment. W. H. Hudson[2] long ago narrated the story of the Argentine Bittern (*Ardetta involucris*), which transformed itself into a reed, contracting the feathers of the neck, raising the beak

[1] Printed and illustrated by photographs in *Ardea*, Vol. XV, 1926, and demonstrated by him to me.

[2] Sclater and Hudson, *Argentine Ornithology*, ii. pp. 102–4.

to the vertical, stiffening its whole self into a narrow and upright posture, and always keeping its front aspect with its long parallel stripes facing the danger. So fixed is this routine that the Bittern practises it in a room as readily as in a reed-bed.[1]

Now in the Herons, and even in certain species of Bittern, this extreme specialisation has been transcended. Adult Herons will strike at anything that threatens, a hand or foot as readily as a head. When wounded they will on occasion adopt the Bittern's tactics; but if so, they cannot be similarly outwitted. So too with concealment. I have myself seen a young Purple Heron, able to leave the nest, but not to fly, adopt exactly the same habit, and stand for at least fifteen minutes perfectly rigid in a reed-bed, although the reeds were separated by an oar right up to its feet. Yet a week or two later the bird would fly or strike at once when sure that it was detected.

In such cases are we to regard the instinct as the original endowment or code under which the primitive type of Ardeid lived and from which its more progressive descendants developed; or is the Bittern an example of the fixation of an originally free behaviour? Does intelligence develop out of instinct; or is instinct merely "lapsed intelligence"? To confront such alternatives is perhaps to adopt a wrong approach to the problem by assuming a radical difference between the two modes of self-expression. Life, at whatever level, has a certain capacity for response to environment. On the lower stages of evolution this response is unmodified by any reflection; at the most the creature tries and fails, and tries again, and ultimately succeeds. And the limits within which variety of behaviour is possible are very narrow. Even when an elaborate routine is as much a part of the creature's constitution as its physical structure or the functioning of its respiratory or digestive system, such routine can

[1] So Sharpe, *Wonders of the Bird World*, p. 284.

only be varied experimentally "on its fringe"; elsewhere it is unconscious and seemingly automatic, and if interrupted cannot be controlled or adjusted. Gradually consciousness develops and the organism gains command of its processes and adaptability; the routine becomes less purely mechanical; experience and individual facility play a larger part; nurture begins to count, and behaviour grows plastic and educable, as a widening of environment calls out new powers of conscious adaptation.[1] Yet where, as in the case of the Bittern, the organism is specialised to a particular and limited habitat, characters originally developed to meet corresponding needs become in time stereotyped; their performance ceases to be modifiable; further experimental progress is arrested; evolution, which moves towards versatility and intelligent control receives a set-back; the creature becomes narrowed in its potentialities as the result of strict adaptation to a peculiar way of life. It is never safe to use human analogies: but we see in ourselves the power of habit to become second nature, of the habitual surroundings to produce automatic modes of thought and action; and if in us there is thus a loss of freedom, we may leave room in our interpretation of nature for similar regressions. To explain the whole in terms of the living agent, rather than by a strict segregation of instinct and intelligence, would seem to be the obvious course. From reflex action and almost automatic behaviour to individuation and conscious control, from individuation to voluntary co-operation and the development of personality, would seem to be the broad outline of the progress of life.

[1] The development from the reflex-level to that of conscious control, though broadly corresponding to the line of evolution, is not in detail rigidly continuous. *E.g.* many if not all birds have the power to control ovulation, to check or postpone or continue the laying of eggs—a power which the mammals and man have not attained.

CHAPTER IV

THE SPIRIT AND NATURE

In these days when what Huxley called the New Reformation has forced itself upon the minds of churchmen, when the religions founded on infallibilities are obviously doomed, when the scientific method has not only come to stay, but has already reshaped our whole outlook upon the universe, the supreme task of the Church is obviously what some would call the baptism of the new knowledge and others the re-interpretation of her doctrines. During the past two generations there has been every excuse for bewilderment and even obscurantism. In times of transition it is inevitable that all the reactionary elements in religious societies should be thrust into prominence: "the things that are seen are temporal, but the things that are unseen are eternal," is a truism which can be terribly abused. To take advantage of perplexity in order to terrify men into Christianity; to employ the principle of compensation, "bringing in a new world to redress the balance of the old"; to set knowledge and faith in opposition and cry out to a people hankering for God, "How long halt ye?" this is fatally easy. We are paying the price in emptied churches and starved ministries, in the antagonism of many an honest and spiritual personality, for our lack of intelligence and of courage. We have come near to making the Word of God, the eternal and creative Spirit, of none effect by our tradition; we have too often been guilty of the sin against Him, that moral blindness which assigns His gifts of new truth to

Beelzebub, and which in so doing proves us unforgiven and out of touch with Him. We have now, in His mercy, a time for repentance, an opportunity, if not of restoring churchmanship (for that we may well be too late), at least of receiving the new knowledge into its due place in an ordered and God-centred interpretation of life.

If the need to "redeem the time" is evident, not less so are the encouragements. It is a striking symptom both of the general trend of speculation and of the specific importance of our present tasks that during the past year or two so many prominent thinkers should have given us their interpretations of the evolutionary process: it is even more significant to find so remarkable a measure of agreement among them. A great mathematician, Prof. Whitehead, a great scientist and psychologist, Prof. Lloyd Morgan, and a great statesman and leader, General Smuts, have surveyed independently the fundamental issues raised by the modern study of Nature. Their conclusions, drawn from widely different standpoints and experience, contain an astonishing measure of agreement both in main conclusions and in detailed verdicts. It is hardly too much to say that the chaos consequent upon the break-down of materialism is passing away, and will be succeeded by a philosophy of the universe wholly compatible with theism and a reasonable Christianity.

If we can find help in such a scheme of emergent evolution as we have been studying in the previous chapter, if we are to accept and profit by the eminently Christian view that the Giver of Life is one, operating in consistent and (from the spatio-temporal point of view) developing activity, and manifested in all creation according to the capacity of its particular levels, we must consider how this Spirit is to be interpreted, and the lesson of its manifestation told alongside the physical and mental stories.

We may begin best with a word of warning. Our purpose in such study is to develop our apprehension of deity, to train our spiritual perceptions so that constantly more and more we may discover in fresh modes the ever-present energy of God, to enrich our understanding of His character, to live more and more consciously within the orbit of His personality, to seek out His works because we have pleasure in Him. This would seem to involve a procedure vastly different from that of our usual attitude. For all of us there is the danger of regarding the divine in Nature not as a source of enlargement and a means of discovery, but as affording illustrations of our own feelings, corroboration for our own prejudices. We start with our convictions about God, with preconceived ideas of His character and purpose; and we look to the creation in the somewhat patronising hope that it will verify for us our conclusions—that is, we seek to buttress our individuality, not to enrich our personality, to reinforce our conceits, not to learn something new. To do so we select from Nature what ministers at the moment to our own mood. The spiritual side of the physical universe is concentrated in the sunset or the primrose, the bird's nest or the star, the lily and the dove. Here we find easy types to illustrate our homilies or enforce our ideas or gratify our sense of beauty. It never occurs to us to consider the deity manifested in the toad or the snake, the vulture or the jackal. Their beauty is not obvious, their habits are unattractive, their place in the scheme of things is open to question. If we only go to Nature as we go to a picture-house, in order to spend a pleasant hour or two in ministering to our own enjoyment, well and good. If we are satisfied that we know all about God and that the witness of creation need only be invoked to support a verdict already given, well and good also. But if really here is a means not merely of testing, but of expanding our knowledge, if we go not to impose our old ideas, but to discover new

ones, if there are elements in the divine purpose as here studied which will amplify, and may well correct, our concepts of spiritual value, then our proceedings will be wholly different.

We shall begin with a plain tale, directing all our faculties of observation to the telling of it as truthfully and objectively as we can. It is our business to know the facts, and as far as possible all the facts, that they may be data from which inferences can safely be drawn. Then we can go on to interpret them at first in terms of physical science, fearlessly setting out an account of the structure and processes and responses of what we have studied. Next will come an attempt to expound the same facts in their psychical aspect, to give a faithful presentation of the psychology of our subject, of its emotions, instincts and intelligence so far as any or all of these are appropriately discoverable. In the correlation of the two stories, as we try to enter into the indivisible life which they disclose, we shall find not only aesthetic joy in what is in all its manifestations beautiful, nor rational satisfaction in understanding fresh evidence of ordered harmony, nor ethical enlargement as we gain richer appreciation of suffering and struggle, and catch glimpses of the paradox of goodness and severity; beyond all these, beyond the extending and unifying of our thought of God, we shall gain new avenues of communion with Him, new insight into the reality of Spirit, new stimulus to spiritual growth. The peculiar joy of religion, the thrill which comes when emotion and thought and moral sense are sublimated in wonder and worship, when through time and space we touch eternity, when the outward and visible signs at last yield to the seeker an utterly new and unexpected gift of God, this joy will be increasingly ours.

And if anyone very justly says, " Why all this toil? I know the joy you mean, and feel it every time the first snowdrop greets me or the first thrush sings; and yet I care nothing for the processes of life or mind, and

should only feel that much analysis reduced my delight to a barren academic knowledge "—then all we can reply is that unsophisticated joy is real enough, we would not for a moment dispute it. "The faith of the charcoal-burner is a sacred and beautiful thing. But you are suggesting that the joy of children over a cornet-player in the street is as full and worthy as that of a musician listening to Bach. We shall all agree that knowledge is dangerous, that the sophisticated often lose their spirituality. Is that a serious argument for limiting our mental effort, for abandoning truth in the interests of emotion?" There is at present much need for remonstrance, however gentle; for such pleas that religion is essentially non-rational are far too common, and the popularity of Otto's book *The Idea of the Holy*[1] has given them a revived plausibility. No one with any experience would equate intelligence with spirituality, or deny that the "numinous" has in it moral and emotional elements which must not be swamped by intellectualism. We may admit that men find God seldom along lines of pure thought and often in violence to their minds. That does not justify us in repudiating the duty of singing with the mind as well as with the spirit; of "proving all things" by stern mental discipline; of seeking to understand as well as to believe. Otherwise we are at the mercy of superstition and pure subjectivity; and the cornet-player is as good an interpreter of God as the orchestra; and progressive enrichment is no part of the divine purpose.

Knowledge here, as elsewhere, has its place, and the more exact the better. A homely illustration of some personal interest will serve as a parable. I shall not soon forget the day when my first-born, a baby in her nurse's arms, greeted me with her earliest smile. Here was recognition, and enjoyment, and subtle flattery of my recent fatherhood. "I'm afraid it's only wind,"

[1] For this see below, pp. 212–14.

said the nurse, trying to spare my feelings, but speaking with the knowledge that I lacked. And baby was turned face downwards and patted on the back, and the expected happened, and the smile disappeared; and daddy went away with his vanity a little hurt, and with a new wonder at the queer workings of digestion.

We go to Nature uninstructed; and we see the smile and interpret it in terms of our ignorance or, as some would say, our common-sense, and use it to bolster up our preconceptions; and spin fine theories round it; and get disappointed and angry (as Prof. McDougall [1] does with Prof. Lloyd Morgan) when we are warned not to read our own wishes into what we see. But if we care for babies or for Nature and Nature's God, we shall be wise to pocket our annoyance, and be humbled, and study afresh. And in time, as we begin to understand more of the intricacy of it, we shall learn our own place in the scheme of things more worthily and gain fresh and more intelligent wonder. The child and its cornet may be lost: we shall be content—" the rest may reason and welcome: 'tis we musicians know "—and in that knowledge there is no room for pride, but only for the peace that is beyond mind.

Another example from the theologian's special province may clear the matter up. Any student of Christian doctrine, if he has got beyond the traditional search for the verification of what he takes for granted, will realise that there are two different attitudes from which we can approach the Incarnation. We may begin, as the Fourth Evangelist and St. Paul began, by recognising that here is One who does not fall easily into accepted categories, One who is a new revelation to be interpreted in the light of a new experience. Then Jesus will be to us " God's Mystery " : we shall take Him, as by research and study we can recover the

[1] Cf. *Evolution in the Light of Modern Knowledge*, pp. 337–9. A more unsatisfactory piece of criticism can seldom have been printed.

truth about Him; and having done so, we shall try to formulate from Him our "plain tale," a concept of God and of the universe which shall take into account all the new data, however difficult to square with previous experience. Our concern will be how to read its meaning out of the mystery, not how to adapt the mystery to our own ideas.

Others will act differently. In seeking to interpret they will fall back upon previously accepted categories. To them and to their hearers the word "God" has already a definite content: why disturb or alter it? Surely for practical evangelism or an intelligible theology it is wiser, or at least more expeditious, to select from the records of Jesus such aspects as illustrate and enforce existent ideas. God, for example, is impassible. If so, and if Jesus be God, then His impassibility must somehow be established, and the Gospels expurgated or explained away. God disallows physical force; on the same showing Jesus becomes an amiable pacifist. God has established private property, it is blasphemy to call Jesus "le bon sans-culotte." No doubt we all, in our measure, "make God in our own image"; but the value of belief in Jesus is that we have in Him a canon of objective reference by which we can escape from our own presuppositions, an example of supreme spirituality from whom, as we understand Him, we can learn of God. We may question which of these two ways of approach has been the more frequent; we cannot doubt which is more consonant alike with scholarship and with religion.

But if we are thus committed to the attempt to "grasp this sorry scheme of things entire," our task will not even at the start be an easy one. It is excellent, in theory, to begin with simple and undistorted observation; but we can only observe through eyes and brain already limited by prejudice, and what we see is only too likely to be what we desire to find. To eliminate our presuppositions so that we can seek

whole-heartedly for truth is not entirely possible; unless we are prepared to try it, we shall merely project upon the universe the image of our own hopes, and shall discover only their reflection. In so doing we shall fail in the very quality which has been the chief glory of the scientists and the chief source of their discoveries; for with few exceptions they have been men singularly humble and patient and single-minded, content to enquire without any *a priori* intent, to follow wherever the evidence might lead. That they have not been able to escape the influences of their time or of the personal equation, is clear enough: at least they are a standing testimony to the theologian of the paramount value of unprejudiced effort.

At the present day one great obstacle to an impartial study of Nature arises from the exaggerated emphasis laid by the philosophy, biology, psychology and religion of our youth upon teleology. The argument from design, so dear to the pious evangelist, may be, as Kant [1] admitted, "the oldest, the clearest, and that most in harmony with the common reason of mankind" of all the formal proofs of the existence of God; but in its traditional shape is open, as Bosanquet [2] and Prof. Pringle-Pattison [3] have shown, to the insuperable objection that it treats God not as Creator, but as Architect, operating upon a universe which exists independently of Him. Darwinism destroyed crude teleology,[4] but its supporters seized upon Darwin's emphasis on utility and purpose to restate its claims. Indeed his work gave signal help to them; for, as we have seen, he based his theory upon the survival-value of every organic structure, and therefore traced, with a

[1] *Critique of Pure Reason.* Cf. Alexander, *Space, Time and Deity*, pp. 343–4: "No one now is convinced by the traditional arguments for God's existence. . . . The only one of the three which at all persuades is the argument from design." [2] *Individuality and Value*, pp. 122–51.

[3] *The Idea of God*, pp. 322–32.

[4] Cf. Huxley, *Collected Essays*, Vol. II, p. 109.

vast wealth of detail, cases of adaptation which had plain teleological meaning. If every particle of every creature was what it was because it served a strict and definable purpose, and if the formulation of this purpose was the chief end of biology, then naturally the Christian would lay supreme stress upon teleology and conclude that " if we ask for an explanation of the Universe as a whole, we are bound to formulate the answer in terms of Will." [1] The emphasis upon conation in the work of Ward and his followers, and upon purpose in the writings of the Animists, guide churchmen in the same direction. God is " Creative Mind "; " Conscious Will the ultimate principle." [2] The Archbishop of Armagh and the Bishop of Manchester are, on this point, in the fullest agreement.

It is with the greatest diffidence that on such an issue I venture to criticise those whose equipment in philosophy and status in the Church are so much greater than my own. But with every respect for their learning and work, I must confess that such an attitude leaves me with a sense of real dissatisfaction. In the first place, to stress Divine Volition in interpreting creation seems to involve a contrast between the Universe and its Redeemer. Dr. Temple would not, I think, have written : " If we ask for an explanation of Jesus Christ, we are bound to formulate the answer in terms of Will " : nothing less than Love would be adequate there. To relegate Will to the Creator and Love to the Incarnate is not only to suggest again the old antinomy of Power and Mercy, but to encourage a tritheistic view of the Godhead such as Prof. Pringle-Pattison so justly criticises.[3]

Further, as we have already seen in the case of Dr.

[1] Temple, *Christus Veritas*, p. 7.
[2] D'Arcy, *Science and Creation*, p. 36.
[3] *The Idea of God*, p. 409. I must add that Dr. Temple seems to me to emphasise dangerously the distinction of Persons in the Trinity; cf. *Christus Veritas*, pp. 277–83.

D'Arcy, to give priority to Will is to complicate the problem of suffering. Darwin certainly did much to revive interest in teleology, and the statement that " every organ and every creature is what it is by virtue of certain functions which it has to perform, and function is always and everywhere purposive in relation to the individual and the whole," [1] is a faithful summary of his conviction. But Darwin's conception of purpose was strictly utilitarian, serving no other end than the preservation of the species. Considering the evidence of cruelty and struggle in Nature, can we prove that this Will is beneficent? And if so, does not the concept of Will really involve a concept of Value? If we can prove that, despite suffering, the purpose of the whole is good, ought we not to substitute for Will either Goodness or Love? Spinoza, who defines the end of the whole process as Love and Joy, is surely nearer to truth and to Christianity. If God's Will is Love, surely we ought not to hesitate to say so.

Finally, this primacy of Purpose seems unsupported by the facts of mental evolution. There is evidence of attraction long before there is any clear proof of volition; and the culmination of the process is not Will, but Love.[2] Be it admitted that cognitive, affective and conative elements must all have their place in any adequate conception of God: admitted that the whole creation serves an end; but at the risk of being accused of hedonism we ought to " give the primacy to love." [3] Creative Love, as Prof. Pringle-Pattison presents it, is a more satisfying interpretation of the source of the universe than Creative Mind or Will; and if to use it is to incur the charge of " making God adjectival to the Universe," [4] the conception even so is, I believe, nearer to the teaching of Jesus than belief in a Creator whose

[1] D'Arcy, *Science and Creation*, p. 69.
[2] For a fuller statement see below, pp. 199–203.
[3] Cf. Lloyd Morgan, *Life, Mind and Spirit*, p. 278.
[4] So Temple, *Christus Veritas*, p. 11, on Pringle-Pattison.

prime attribute is Omnipotence and prime function the issue of a fiat. In such a matter the difference is, no doubt, more of emphasis than of fundamental outlook: the Will of a Being whose Nature is Love means much the same as a Being whose Love creates; but Dr. Temple's book [1] no less than Dr. D'Arcy's leaves me with the impression that God in their thought would still be God even if He had not willed the Universe, and this is, I think, hard to reconcile with belief that Love is of the essence of Deity.[2] Their position appears too highly charged with Old Testament and Hellenistic associations. For myself I must confess, with Prof. Lloyd Morgan, that "of God in isolation from the world—of God apart from what Mr. Alexander calls the emergent quality of deity supervenient near the summit of the evolutionary pyramid—I can form no adequate conception"; [3] and my studies of Christian doctrine lead me to believe that the obsession of the early Fathers with extra-mundane speculations was alike non-Christian in origin and in the last resort incompatible with belief in the Incarnation.

It was necessary for our object to discuss this legacy of the Darwinian teleology, that in doing so we might clear the way for a more positive statement. If we can strip ourselves of presuppositions and try to let Nature make a fresh impact upon us, what is in fact the first element in our response? Here each will answer for himself, and many may not find it easy to answer at all. For me, and I think for many others, the immediate effect is sheer wonder—an awe which has in it both tears and laughter, both humility and exaltation. It is the poet that is fundamental in most of us—

[1] I believe he differs from me in emphasis only, but many statements, particularly on pp. 274–81, seem rather obscure and hard to reconcile with his real meaning elsewhere.

[2] On this ground I should accept Origen's belief that the Universe is co-eval with God (cf. *De Principiis*, Vol. I, 2, 10).

[3] *Emergent Evolution*, p. 299.

we are artists before we are scientists and philosophers —and the poet starts from the unity of the whole, not from the analysis of its parts. And as a poem the universe traverses the whole scale of our appreciation and satisfies every fibre of our being. Beauty is too small and conventional a word; for beauty as commonly used leaves no room for tragedy. Here is art which breaks us with its terror, crushes us with its majesty, ravishes us with its joy, thrills us with its pathos, convulses us with its mirth; art in which thunder and mountains and harvest-field, snowdrop and centipede and puffin, octopus and antelope and little child have all their place; art perfect alike in its infinite variety and its balanced congruity; art complete in poise and movement, in whole and in detail, detail which testifies to unity, movement which is eloquent of peace.

And I see only a glimpse, I can measure but a fraction. Beyond my apprehension, too small, too great, lies marvel upon marvel. To watch the formation of crystals or the corpuscles in a drop of blood; to study the structure of a coral polyp or the emergence of a moth from its cocoon; to feel the texture of a bird's feathers or listen to the thrushes at the dawn; to trace the arch of the rainbow or gaze at the rings of Saturn— that is the limit of my experience. And above and below and around is a universe for contemplation. One needs the soul of Job and the Psalmist, of St. Francis and Wordsworth, one needs eternity, to tell the tale of it.

Sentimental—yes, I suppose so. But surely such sentiments are common to us all, and not on that account contemptible. And for theology they have their place. For if such is His art, what of the Artist? If we are to think worthily of Him, we must feel deeply. "Give me life, more life," prayed Richard Jefferies; and if life means anything, it means, at any rate, an increasing sensibility to all that is. If St. Paul was

right in claiming that the pagan world had the testimony of creation as their guide to God, I see no reason why Christians should not find Him there too; and why they should not saturate themselves in the wonder of His works. We must learn to appreciate earth if we are to be fit for heaven; and for me the revelation of it is so overwhelming that there is often little room and little desire for more. Is this Pantheism? No doubt good folks will say so. At least there must be space in any sound religion for Jefferies and his kind, for those who find the earth so worshipful that they cannot lightly decry its worth. Jesus Himself seems to have cared more for lilies and sparrows and children than for the sapphire throne or the choiring cherubim. If we cannot discover the myriad beauty of this world, I doubt if we are fit to appreciate the next. If we cannot value our home and love our brethren here, are we the kind of people whom a larger environment and a heavenly Father will satisfy?

It is this doubt which makes me hesitate about the insistence of the detachment of God from the universe, about the doctrine of creation as a specific act "out of nothing," [1] an event which, if it had not happened, would have left its Maker the same. Not that I agree with Bergson or even (I think) with Prof. Soddy,[2] except in so far as they accept the universe as eternal. Matter, whatever its constitution, is not self-existent, apart from the Spirit, the "other-number" to God; nor is it merely the independent fabric upon which He impresses His purpose, as the sculptor models the clay. Rather it is the vehicle of His self-revelation, the outward and visible sign of His inward and spiritual Being, the manifold speech of His manifold Wisdom. Yet not so as to be identical with Him or as if each aspect

[1] The doctrine of creation out of nothing was formulated against the dualistic tenets of the Gnostics, who conceived of matter as pre-existing and hostile to God.

[2] *Evolution in the Light of Modern Knowledge*, pp. 401–4.

of it equally expresses Him—that and that only is Pantheism. He is manifested by its several levels according to their ability from the atom to the Son of Man. The Universe is not His body in Prof. Alexander's sense;[1] for He is not dependent upon it or developing along with it. He is Creator, but His creation is an eternal activity.[2] When we come to discuss the mystic experience of an "eternal Now," the ground of this belief in the eternity of the Creative energy will become more clear. Meanwhile I would only add that the spatio-temporal universe seems to me rather a mode of the divine self-expression, what Origen would have called "a radiation of the divine light," than an act of the divine will. Certainly it is presented to me as a process, and as such, if it is to have any direction, it must logically have a goal; but time and space, succession and extension, seem rather the conditions and method of my thinking than in themselves fundamental realities, and if while thus intellectually conditioned I can truly have experience of the eternal, then it is my duty to seek for an explanation of the universe rather in terms of being than of becoming.

It is because the appeal of the universe is primarily to the artist in us that art is obviously the first, and in some sense the most adequate, interpretation of it. The truth which cannot yet or by us be told in terms of the intellect is expressed, if anywhere, in music, poetry, architecture, dancing, the drama. We common folks are inarticulate, untrained in aesthetic appreciation, too self-conscious to give our impulses free play. But even so, we can recognise that in all art worthy of the name there is a touch of eternity, of a reality too large for definition, of a truth universal in its appeal, and that in the hands of a master his medium is the only appropriate means by which such eternity can be interpreted.

[1] *Space, Time and Deity*, Vol. II, pp. 358–69.

[2] For a similar conclusion, cf. J. Y. Simpson, *The Spiritual Interpretation of Nature*, pp. 245–7, and, more fully, Pringle-Pattison, *The Idea of God*, pp. 298–321.

Even those who, like myself, are infants in aesthetic equipment know beyond question that here in the handful of supreme achievements is the authentic mystery, and that translated into such terms we others can begin to conceive and to explain it. Here is the same wonder and awe, the same sense of illimitable and apprehended unity; and the artist gives me a sacramental expression of that infinity far more exact than any intellectual formula or elaborate analysis. He, a man like myself, does for me what I cannot do for myself. He feels and fixes and transmits to me the elusive beauty by which I too am haunted. He gives me eyes and ears that I in my small way may share what he has seen and heard.

If his primary impression of Nature is that of creative art, the student will soon find that he cannot rest in the realm of feeling. Wonder leads on to interest, contemplation to enquiry, the aesthetic to the intellectual. As the child does not long remain content with cognition and comment, but at an early age satisfies its curiosity by interminable questioning, so the world around us presents an immediate stimulus to mental activity. No one can watch with any sympathy the growth of plants, the behaviour of insects, the ways of birds and beasts, the motions of the stars, without the stirring of a desire to understand, to ask first " Why? " and then " How? " To seek for the purpose before we know the mode is characteristic: we are mythologists before we are scientists: religion is older than physics or chemistry. But if we are to look for satisfying answers, we must reverse the order of our desires, and study the workings of Nature before we enquire its meaning, remembering always that to give an account of a thing is not to account for it.

It is no part of our purpose to discuss the stages of our enquiry, though these necessarily follow a regular sequence.[1] We must first name and classify, carrying

[1] Streeter, *Reality*, pp. 79–81, gives these as classification,

on Adam's task and imposing what order we can upon the objects that we identify. Nomenclature and systematology have a fascination of their own, quite apart from any further knowledge. Indeed to imagine that we have explained when we have labelled and catalogued, is a failing so common to humanity that it is not surprising to find scientists occasionally, even now, succumbing to it. Like the collections which illustrate it, and the formation of which is too often the extent of an amateur scientist's achievement, it represents a necessary, but preliminary, stage. Fortunately, if it is to be done with any accuracy it inevitably leads on to morphology. Superficial study may place the bats among the birds, or the whales among the fishes; knowledge of structure will be necessary if we are to separate the swifts from the swallows or the owls from the "Raptores." And to study form is to discover adaptation. Take a simple instance. Cormorant and Gannet, though very closely related, are as different in habits and appearance as two water birds could be—the first a diver, pursuing its prey with the thrust of huge feet to the depths, but heavy on the wing and only flying to change its feeding-ground; the second a bird of the air, tirelessly buoyant, rarely settling on the sea, and plunging from on high with a sheer "nose-dive" upon fish far below the surface. Dissect them and observe the structure (say) of the sternum and shoulder-girdle. Here are the same bones characteristic of the order and peculiar in the joining of the coracoid, clavicle and scapula, and in the ankylosis of the clavicle with the keel of the sternum. Yet the shape and proportion of them are moulded to suit the life of each; the Cormorant's specialised like a Grebe's, with broad surfaces for muscle-attachment

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analysis, explanation. He limits science, rigidly but I think unjustifiably, to what can be thus treated. But cf. *l.c.* p. 102, an admission which overthrows his previous conclusion.

to give elasticity for a rapid wing-beat, long and slender coracoids and furcula, and plates of bone stretching back over the belly; the Gannet's modified for flight, clavicle and coracoids short and stout, keel projecting, sternum narrow and raked forward, the whole suited to the bunched and powerful but inelastic fibres of the pectoral muscles that drive the long slow pinions. So morphology leads on to teleology, the study of form to that of function. Noting peculiarities of adaptation, we set ourselves to explain them; and in so doing plunge into the mid-stream of modern science. Here are problems on every side and in every department; theories to be tested; observations to be extended; deductions to be drawn. The last half-century has been lavish in its hypotheses; for explanation goes hand in hand with investigation. We have given instances enough to show their manifest attractiveness and the magnificent ingenuity of their authors. If that first heyday of speculation is, in certain spheres, and very notably in biology, passing away; if for the explanation of animal life the biochemists and biophysicists, on the one hand, and the comparative psychologists, on the other, have the future in their keeping, there remain, in cosmogony and pure physics at one end of the scale, and in anthropology, psychology, and psychic research at the other, fields where speculation has still a wide range.

Throughout, such study is concerned with process, with the discovery of the modes of development, with the exact formulation of what are popularly called the laws of Nature, with the provision of evidence for the philosopher and the man of affairs. The scientist as such is concerned solely with knowledge, not with religion or politics—hence his title; and his motto is, "This man decided not to live, but know." Fortunately for himself, he is also a man, a citizen of earth and heaven, like the rest of us; but, like all specialists, he will sacrifice something of proportion and breadth,

and will in most cases be disqualified thereby as a philosopher or a prophet, as the " religions " of science have too often demonstrated. Yet in his own sphere how enormous is his contribution, controlling as he does the intellectual life of man ! For science claims nothing less than to survey the whole field of human experience, to arrange and explain and interpret it intelligibly.[1] Whatever men can know, this is material for the scientist. Religion itself, so far as it is concerned with intelligible truth, is his concern; and, indeed, in studying psychology he will deal with aesthetics and ethics as well. In this way and ideally the fields of religion and science are identical, and they themselves only differ in as much as religion is concerned not merely with knowledge, but with life. Every religious man should be a scientist; a scientist as such need not necessarily be religious, though he could only not be so as he became not a man, but a thinking-machine.

This is the first and obvious lesson of the study of Nature for the Christian—that it is by scientific methods alone that the intellectual validity of his belief can be tested.[2] Ultimately an interpretation of it in the categories of thought may fail; life, and not logic, is the ultimate test; but it will only fail in so far as life contains certain experiences of the eternal which cannot be handled by mental processes. The nature of this exception is important: it concerns only the sphere which neither science nor religion can translate

[1] Few British scientists would accept the definition of their work common apparently in America which confines it rigidly to description and denies to it the right of explanation. Cf. Poincaré, *Science and Hypothesis*, p. 141: " Science is built up of facts, as a house is built up of stones; but an accumulation of facts is no more science than a heap of stones is a house." It is, in fact, impossible to investigate the quantitative aspect of things without reference to the qualitative.

[2] Cf. Alexander, *Journal of Philos. Studies*, January 1926, p. 12: " Truth and reality are not identical conceptions. Truth is reality possessed by mind," quoted by Streeter, *Reality*, p. 44.

precisely into formulated doctrine. Whatever is capable of formulation will have to receive the endorsement of science if it is to be accepted as valid. In these days, when men still divide the supernatural from the natural, faith from reason, infallible creeds or scriptures from other hypotheses and literature, and refuse to submit the former in each case to criticism, and yet claim to argue about it and impose it, such a warning is not unnecessary. We are no longer living in the age of tabu and "acts of God" and special providences: if God is in the universe at all, He is in it all, and is everywhere to be studied sincerely and exactly. There will be much that eludes our understanding, much on which the evidence will leave us unable to speak with confidence, much of which we shall be wise to confess ignorance. But only disaster awaits the religion which accepts such ignorance as a licence to credulity, or tries to fit God into the gaps left by scientific study.

For the most obvious lesson of such study is that the universe is a cosmos, a system of relationships intimately interdependent, a reign of law in which nothing happens by accident and there are no intrusions. It is just as much within this one order that the Spirit works in creation as in those fuller manifestations which we call the Incarnation and the Atonement. "Science," as Dr. Inge asserts, "will never renounce the attempt to bring everything under a single system of laws."[1] Scientists have seen one barrier after another broken down, one inviolable territory after another entered. The authorities which stood across their path have been driven often ignominiously into retreat; and efforts to resist which failed when the doctrine of special creations or of scriptural inerrancy were concerned are not likely to succeed in defence of the Athanasian Creed, or transubstantiation. Those of us who have come to Christianity by way of science, who are convinced that *credo quia incredible* is a counsel

[1] *Science, Religion and Reality*, p. 371.

of despair, and who value the freedom to investigate as the peculiar glory of Anglicanism, can hardly be expected to sympathise with the pathetic and well-meant but wholly mischievous attitude which clings to "old paths in perilous times."[1] We must be monists, and take the consequences. Truth will in good time prevail. If Christianity be true, we shall not have lived altogether in vain; if it be false, then at least let us discover our mistake as soon as we can.

But if an ordered unity of experience is our end, if every aspect of intelligible life must be studied scientifically, then the scientist not less than the Christian loses his right to say, "What have I to do with thee?" to any inconvenient datum. He, not less than I, is committed to the search for a synthesis: he, as much as I, is forbidden to select some facts and exclude others. Thus, for example, there is a very large body of opinion which claims to have experience of the power of intercessory prayer, a claim on the face of it hard to reconcile with many accepted theories of the relation of the psychic to the physical. The evidence when examined may be found to be invalid: well and good. It is not scientific to dismiss it with a shrug, as who should say, "That is your concern, not mine." Similarly with the experience commonly called mystic: if it is maintained by otherwise intelligent persons that they have indeed such apprehension of the eternal, then psychology cannot be true to itself unless it investigates. And if the psychologists approve it, the physicists and biologists must take it into account. So too with the records of the New Testament: if scientists had not been so ready to leave religion alone, or so quick to receive the thoroughly unscientific[2] dictum that

[1] The title, if my memory serves, of a tract in defence of Verbal Inspiration published in 1911 and in Cambridge!

[2] Cf. Hobson, *Survey of the Domain of Natural Science*, p. 490: "The assertion is merely a piece of *a priori* dogmatism." It is unscientific in the sense in which it was

miracles do not happen, we should have been spared an unedifying *volte face* over psychotherapy. Religion ought surely to welcome, and scientists to undertake, such work as M. Berguer [1] has initiated : when research is carried out with specialised knowledge and in a free and large, and therefore reverent spirit, we have everything to gain from the attempt to examine and as tested to employ the data of religion for the construction of a synthetic interpretation of the universe. Those Christians (and there are Anglican bishops among them) who are urging that there is no such thing as a Christian science must mean, if anything, that Christianity and science deal with different kinds of reality—a contention which, if pressed, leads religion into pure obscurantism and superstition.

With order there is development. That is the second lesson of the scientific study of Nature. We may well agree that the evidence does not disclose any purely mechanical " law " of progress, least of all in humanity, where the individual and the race have secured so large a measure of control over their environment. Certainly it is not an axiom that the men of the twentieth century must by right of birthday be better specimens of their kind than those of the first or the thirteenth. That is a matter for investigation and argument, and will turn largely upon the value that we assign to " better." But that there is manifest development, a steady increase of complexity, of adaptation, of physical and psychic powers, of all that makes for fulness of life, this can hardly be questioned. As we trace the path of evolution, with the aid of palaeontology and embryology to supplement biology,

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uttered and endorsed, viz. that certain recorded events were impossible. If the saying be taken to mean that nothing happens in violation of the natural order, then it is axiomatic for science and for many Christians.

[1] *Some Aspects of the Life of Jesus*, a reverent and discriminating attempt to interpret in terms of psychology.

such progress is abundantly demonstrable, though it is nowhere automatic, and shows many signs of an accompanying tendency to degeneration. The path is strewn with the vestiges of failures, with the skeletons of extinct types, with the lavish wreckage of an exceeding great army. No religious optimism must blind us to the cost of the journey; man's ancestors have trodden their *Via Crucis* and left their bones upon it as a testimony. The problem of them, of their suffering and the cruelty that accompanied it, leaves no room for easy talk, as if development were cheap and lightly won: that will concern us later. Here we merely note it and that at least their toil was not in vain. For life moves: slowly, as we count time, from age to age new adjustments appear, new difficulties are overcome, new milestones passed, new triumphs achieved. Life moves: did we not recognise the length of the journey and the obstacles on the track, we might think of it as delighting in its sheer mastery of form. The ingenuity which can fashion an eagle, or an *Archaeopteryx*, out of the stuff of its reptilian forebears, or can accomplish the miracle of hearing by transforming gill-slits into eustachian tubes, reveals the economy of a god: so simple it seems and yet so perfectly adapted to its end. Life moves: and as we study it we see that its circumstances are so ordered that it must move or perish. On that road there is no abiding city.[1] Changes of climate and of the earth's surface, "war, pestilence and famine,"[2] alterations of food and habit, the development of family and communal and symbiotic relationships, all these have produced the elimination of the unfit, the modification of old types and the emergence

[1] Inge, *l.c.*, p. 352, combatting the idea of progress, declares that bees and ants have ceased to progress long ago and have "established a stable civilisation." Such a statement is enormously precarious—at once unproven and improbable.

[2] Cf. Malthus' triad of checks; cf. *Essay on Population*, a source of Darwin's theory.

of new. Even in our own day very many species have disappeared—most, it must be confessed, through human agency; and some, like the Leucanid moth *L. brevilinea*,[1] have appeared. Life moves: and its movement is no mere undirected flux. Steadily and under strictest rule, though many a wave ebbs and recedes, the tide makes up channel.

We have previously spoken of the universe as a work of art. In the light of evolution it suggests rather a school. Here are ordered conditions, a rigid framework of law, without which, much as we rebel against it, there could be no learning. Here are penalties and rewards meted out with a stern and impartial justice. Here is growth, as fresh tasks are set and fresh faculties called into use. Now we are horrified, as, reading back our human sensitiveness into the scene, we shudder at the ruthless severity of the discipline; now we are awed as we discover the potency of its effects; and now enthralled by the subtle charm of its products. And in judging it we must look not only at the lower grades, but at the highest. As its result is man, and at last the ability to appreciate the whole and even, so he dreams, to meet his Master face to face. Whatever that Master's character as revealed in His work, His universe has been the training-ground for humanity, "the medium for the production and perfection of goodness in finite minds."[2] Clement of Alexandria was right when, thinking of our race rather than of life, he called the Eternal Word the School-master; the title has a wider reference than he knew.

So, thirdly, we must philosophise, considering not the "how" of life, but the "why." Beyond the art which is beauty, and the order which is truth, can we discover yet other values? Of what character is the Artist and the Disciplinarian? Have we any grounds for believing that the Spirit manifested in the Universe

[1] See Note at end of Chapter.
[2] Sorley, *Moral Values and the Idea of God*, p. 459.

is what Jesus proclaimed, what Jesus Himself is? Those are the questions which for us men really matter; for ethics and religion concern us more closely and are of more vital interest than the aesthetic or the intellectual. Is all this beauty the beauty of cruelty and lust, of corpses and decay? Is this order solely utilitarian, not to say commercial, in its method and its end? Is the meaning for morality and religion so obscure that we can posit only an Unknown, an Unknowable, as the underlying reality? Poets like Baudelaire, scientists like Huxley, thinkers like Spencer have seemed to say so. Are we, in face of the evidence, to agree?

The problem thus presented is not one for light and airy treatment, for the easy optimism or often easier pessimism of the young. Only those who have themselves suffered, who have felt the desolation that comes with death and wrestled with the tragedy of the massacre of the innocents, who have striven with heart and mind to perceive and understand without mitigation and without exaggeration, can touch the issue at all. Few of us, and I am most obviously not of them, are big enough to touch it without debasing it. That is why, perhaps, it is wisest to go straight to the experts, to those who have fully lived and known the agony of pain and the effort of understanding, to Jesus; and to accept their verdict as final. Yet if our philosophy is not to be at second-hand, if we are constrained to investigate and decide for ourselves, we cannot start with *a priori* assumptions, but must reach as best we can our own conclusions, and then test them by comparison. In doing so we shall use the data of the expert as evidence, but not as giving unexamined either a starting-point or a goal. A slavish discipleship is the mood of slaves, not of sons. Our task is to work out our own salvation with fear and trembling: until we have tried to do so, we have no right to claim the discovery that there is One that worketh in us.

We would not then overlook—what no student of Nature or of humanity can fail to see—the evidences of cruelty and lust which culminate for humanity in pain and evil. They have been before us all along—evolution by elimination, life by death, sensitiveness bought at the price of pain, freedom at the price of evil. We have seen how such facts have been interpreted in terms of the struggle for existence; and we see every day those for whom, faced with them, it is mockery to speak of a God of Love.

For the Victorians—for the artists like Tennyson and Watts, as for the scientists like Darwin and Huxley—the whole issue was coloured not only by the utilitarianism of the age, but by its humanitarianism, by its best as well as by its worst characteristic. The distortion appears at its lowest extreme in Nietzsche, where "be strong" banishes pity, and at its highest in those pitiful souls for whom even vegetarianism savours of the shambles. We have already protested against the misinterpretation of animal behaviour which explains the actions of protozoon and insect, of bird and beast by the analogy of human intelligence; a similar protest must be made against attributing our sensibilities to creatures differently organised. It is perhaps creditable to our sympathy that we should see in the writhings of the severed earth-worm or the landed trout the expression of an anguish of body and nerves like our own, that when Tommy tears the wings from a fly or robs a nest of its eggs we should ask him how he would like to have his arms wrenched from their sockets or his baby sister thrown out of the nursery window. Cruelty in the children of men deserves the severest punishment: it is our business to treat all that lives with reverence and comradeship. But it is obvious that, even so, our attitude is curiously inconsistent. Every gardener prunes his roses and gathers his sweet peas; yet few can squash a caterpillar or smash a snail without a twinge of remorse. And if

inconsistent, it is also unscientific. There is no reason at all to suppose that the million eggs of the cod which form the food of the herring (and are so beloved by anti-Christian propagandists) feel any more of what we know as pain than the million grains of wheat which make our daily bread. On that point the evidence is conclusive. "When a crab will calmly continue its meal upon a smaller crab while being itself leisurely devoured by a larger and stronger; when a lobster will voluntarily and spontaneously divest itself of its great claws if a heavy gun be fired over the water in which it is lying; when a dragon-fly will devour fly after fly immediately after its abdomen has been torn from the rest of its body, and a wasp sip syrup while labouring—I will not say suffering—under a similar mutilation: it is quite clear that pain must practically be almost or altogether unknown." [1] Pain is due in us to three chief factors, to the highly sensitive nervous system which accompanies the development of the higher areas of the brain, to the anticipation of hurt due to our foreknowledge of what is to come, and to the sympathy which enables us to share the sufferings of our fellows. It has its physical, its psychic and its spiritual sides, corresponding in its intensity to the level of our personality. A nerve-net, a faculty of bare cognition, a mere "relatedness" with other organisms —creatures so equipped do not and cannot share our sorrows. As they rise in the scale of life, as new powers emerge in them, there is development of sensibility; but the difference is so vast between the primitive and the civilised races of mankind, that it may be doubted whether there is any real pain without a frontal cortex, a fore-plan in mind, and a love which can put itself in the place of another; and these are attributes of humanity. The others suffer, each in the measure of its capacity; their range is not ours,

[1] Rev. Theodore Wood, quoted by Simpson, *The Spiritual Interpretation of Nature*, pp. 131–2.

nor anything at all closely resembling it. And to assume it to be so is to set up the bogey of a nightmare as truth.

And if the pathetic fallacy misleads in one direction, it is equally dangerous in another. This is not the place in which to discuss the meaning of love or the crimes committed with its name; but so long as we identify it with amiability or even benevolence, so long as it is to us sentimental rather than wise and righteous, we shall misconstrue God and parody Christianity. To picture the creative Spirit as soft-hearted, and in consequence often soft-headed, to expect Him to make favourites and to temper His wind to the shorn lamb, is to ascribe to Him qualities unworthy of a human parent: it is also to be false alike to the teaching and to the example of Jesus. In the first emphasis upon the "reign of law," when the severity of the Creator was used to explain the drastic character of the struggle for existence, it was natural that theologians should fall back upon the Old Testament for their theory of the Father, and in compensation exaggerate the gentleness of the central Figure of the Gospels. To-day, when we are recognising afresh the heroism and austerity of Jesus, we must not as Christians impute either mere kindliness or mere sternness to our Maker.

There is, as we have seen, in our scheme of things room for the influence of the organism upon the process of evolution. To speak of "choice" or to make gibes about the free-will of an *Amoeba* would be fallacious; but unless development is from first to last determined independently altogether of the creatures' activities and response, life at whatever level must imply, in however lowly a degree, alternative possibilities of reaction to environment. As the individual, be it animalcule or man, uses its circumstances, so it will help to fix not only its own survival, but in its measure the quality of its descendents and the line of the future.

That there will be degeneration as well as progress, mistakes involving the side-tracking of a whole race into a blind alley, disasters which can only be undone by ages of suffering, is the price that has been paid for growth in capability, in freedom, in sensitiveness. Origen spoke as a scientist when, challenged to vindicate his faith in God in view of the fact of human want and hardship, he pointed out that if man had not been liable to die of cold he would never have developed his skill as builder and weaver, his arts of housewifery and social organisation; that if he had not perished of hunger, the gardener and the farmer, the carpenter and the smith, the merchant and the sailor, would never have learnt nor exercised their craft.[1] That, in spite of a myriad delays and a myriad failures, through bloodshed and horror, organisms have achieved the ascent of man, is proof perhaps that the agony of the ages has not been in vain. "At a great price obtained I this freedom." It cost more to redeem our souls, to secure for men the power to hold free and loving communion with the Eternal, than we can realise. Realised at all, it constitutes our obligation and our incentive.

It is against this background that the student of Nature will see evil. That which St. Paul calls "frustration,"[2] the failure to fulfil the possibilities of its qualities, the misuse or atrophy of developing powers, becomes with the emergence of a moral sense not merely frustration, but sin. That if freedom is to be won, there must be the possibility of choosing wrong, that only under such conditions can there be progress, is true enough. Virtue "of necessity" is no virtue; life without effort is not human. "A world that excluded this possibility of evil would not be the best, indeed it would not be spiritual at all": [3] it "would be a less noble and worthy event than it is if it did not

[1] *Contra Celsum*, IV, 76.
[2] Rom. viii. 20.
[3] Jones, *A Faith that Enquires*, p. 245.

contain the values which can be realised only by free beings, and therefore cannot be purchased except by the gift which makes evil possible as well as good." [1] But such consolation does not mitigate the guilt of wrong-doing. Nor is it an excuse that our growth is manifestly incomplete; that the best of us is less than fully man; that atavisms distort and stunt our stature; that we are sharers in an animal heritage and in other men's sins. Plainly there are multitudes upon whom our judgment must be merciful: indeed we have little right (and as Christians are forbidden) to judge any but ourselves. At the best we are poor creatures, when our achievements are contrasted with our race's ideal, or even with our dreams. If we are capable of life on the spiritual level, then the obvious fact is that we do not realise, cannot fully realise, our capacities.

To say so is not to represent evil as good in the making or to excuse us when we "continue in sin." If progress depends in some degree upon persistent striving towards the best that we know, then failure to strive is a betrayal not of ourselves only, but of others, of the race and of the future. If we are so constituted that in us there can be an emergence of a new spiritual level, an emergence of what Professor Alexander calls deity, then sin involves frustration for ourselves and humanity and also for the Spirit of God. That man is learning to know good and evil, and, when he comes to his true self, to repent and arise and go to his Father, is no small gain.

And yet, while it is right to judge the process by the standard of its highest achievement yet known to us, we cannot see its earlier stages solely as wastage or as having no value save as preparatory. If we have learnt from Jesus to know that love involves freedom and means sympathy, and that sympathy is the true synonym of sacrifice, this is surely the clue to an under-

[1] Sorley, *Moral Values and the Idea of God*, p. 503.

standing of the suffering of the world. Fabre, who had himself suffered and had observed as few others the ghoulish rapine of life, has put on record his own meditation on the riddle: "If each creature is what it is only because it is a necessary part of the plan of the supreme Artificer who has constructed the universe, why have some the right of life and death, and others the terrible duty of self-immolation? Do not both obey, not the gloomy law of carnage, but a kind of sovereign and exquisite sacrifice, some sort of unconscious idea of submission to a superior and collective interest." [1] That is the testimony of one who would not have called himself a Christian; and it amounts to this—that woven into the very woof and warp of the universe is the pattern of the Cross, that Nature is baptised in the Spirit of Jesus, that man's creation was accomplished by the same means as his redemption.

To leave it so would be to suggest a picture almost sinister in its gloom. For to most of us the Cross stands for strained and unrelieved tragedy. So unregenerate is our sense of values, so obsessed are we by earthly conceptions of success and of prosperity, that we need to be reminded that such sacrifice is not sorrow, but joy, that the love which gives is not pain, though it break our hearts, but the only real and satisfying gladness. As George Eliot has said at the conclusion of *Romola*, "We can only have the highest happiness, such as goes along with being a great man, by having wide thoughts and much feeling for the rest of the world as well as ourselves; and this sort of happiness often brings so much pain with it that we can only tell it from pain by its being what we would choose before everything else, because our souls see it is good." And of this joy Nature may remind us. If her children are also her victims, at least she decks them gloriously

[1] *Oubreto Prouvençalo, Le Semeur*, quoted by Legros, *Fabre Poet of Science*, pp. 234–5.

for the sacrifice, and sends them to it with a splendour of pageantry. No one who has spent much time with flowers and birds can doubt the gladness of their lives, or fail to share the Psalmist's vision of the trees of the wood rejoicing before the Lord, or Homer's of the wildfowl of the Asian mead exulting in their wings. However poignant its suffering, there is worth in life, worth so wonderful that its creatures seem bursting with good news, worth so rich and manifold as to justify (if it needed justification) the agony a thousandfold. Not that it is ours to weigh up good and evil in the balance and to decide whether and to what degree the result shows a preponderance of good. Rather we must see it, as best we can, in its fulness of tears and laughter, realise that both are inherent aspects of one whole, and ask whether the impression that it makes is not one of love and joy. We have made both words too cheap, profaning them by our shallow optimism; but for that which we can see of the Spirit revealed in His creation they are the only possible tallies. Here in the universe are the qualities which Spinoza ascribed to man, *amor intellectualis*, a love which is wise, and *acquiescentia id est laetitia*, a joy which is peace, the qualities which St. Paul put first in his list of the fruit of the Spirit.

> " To him the sorrows are the tension-thrills
> Of that serene endeavour,
> Which yields to God for ever and for ever
> A joy that is more ancient than the hills." [1]

And so beyond the work of art and the training-ground we discover the home; the Artist and the Teacher is also and supremely the Father. We who have so parodied family-life and parenthood, who have often made them foolishly sentimental or meticulously boresome, who have yet to learn the lessons of the patient trust and long-sighted love of the Spirit, and

[1] T. E. Brown, *Pain*.

His suffering and His joy, yet know that Home and Father are alone adequate to describe the relationship of our dreams. Can we so describe the universe and the Creator Spirit emergent in it? Jesus did so: with His guidance we may do so too.

And if so, the creative process can surely be studied in the light of growth as we know it, in man, in what is in our experience its culminating product. We have traced the development of a human personality from its lowly origin in the fusion of two cells to its fulfilment in an integrated person capable of appreciating and manifesting value, and of experiencing communion with the eternal. Does not the fact of recapitulation encourage us to see the whole creation as an analogy on a vast scale to that familiar development? As far back as we can trace the nature of the fundamental constituents of the universe, we find the whole based upon and characterised by the twin qualities of attraction and repulsion which determine the composition of the atom and the relationships of proton and electrons. Out of the simple and tenuous stuff energised by these primary forces is built up the complexity and variety of the universe which is to be the home and matrix of life; and from it at a definite level of its evolution emerges the living cell. Attraction and repulsion, the impulse to unification and the impulse to differentiation, still operate, and under their motive power behaviour of a rudimentarily conscious type is elaborated. Organisms capable of fuller and more self-determined action upon a wider and richer environment are brought into being with an increase of structural subtlety and vital power. Through a myriad phases and in an incalculable multitude of forms the creative Spirit manifests His activity, revealing to the student a perpetual miracle of triumphant achievement. We are tempted to visualise the process solely from the aspect of the self-revealed Deity; to describe it as the onward march of

the Giver of Life, as the drama composed and set and performed under the inspiration of God. And such it is; but the picture thus suggested is not enough. For at every stage the creature is no mere puppet, impelled solely from without, but itself in some sort an entity capable alike of an ever more definite individuality and of ever more complex interaction with its surroundings and its fellows. The image of the family where each is integral to the whole, and the whole is realised in each, since all alike proceed from and are united with the parent, is a truer analogy. Personal liberty and co-operative unity are both essential: neither can exist in isolation: a completely solitary entity is as unthinkable as an undifferentiated whole. Life is relationship: life is love. And by infinitely slow degrees creation gives rise to those more developed children of the house in whom the primitive attraction and repulsion are transformed into a passion for mutual absorption and a worship of the beloved just because he is himself and not merged in me. To lose myself in him, to rejoice in him as eternally the object of my affection, these are the twin elements in man's spiritual experience, the manifestation in its (to us) highest form of the love which from first to last has been the essential quality of the whole process. The universe is God's family; and we the last-born and the most richly endowed of His children.

There remains a question which, though fundamental, cannot be adequately treated as yet. It will be objected that we have slipped, without due warrant, from Beauty to the Artist, from Truth to the Teacher, from Goodness to the Father. Is this justifiable? If the universe discloses value, have we in it any evidence of Personality?

It lies outside the scope of our subject to enter fully upon the statement of the case for Theism. In any event, to maintain that the eternal activity in creation is One who cannot be classed as an aggregate of laws

or attributes, as inanimate or sub-personal, can only be done when we have examined our highest experience, that of communion with Him. Here we may at least urge that the old-fashioned arguments for the existence of God can be so strongly restated that, while they do not amount to proof, they cannot be lightly brushed aside. And even if the evidence of man's religious convictions be deferred, we can from the study of Nature put forward a case which is at least hard to refute. There is discoverable in the universe a principle of value, inherent both in the whole process so far as we can understand it and in its several parts. Now "all other values are," as Green expressed it, "relative to value for, of or in a person"; [1] they are, in Professor Alexander's phrase, "possessed by mind." A thing is good or beautiful because I judge it to be so; but it is not so only on this account. For my finite individuality is not a discrete unit, and my standards of judgment are from first to last modified and enriched by widening experience of trans-subjective relationships. As we shall see, the individual becomes a person as he shares more fully in the life of the whole; and in the last resort value cannot be determined by reference to anything less than the universe itself. "The inference is to a unitary perfection lying in the complete individuality of the universe as a conscious being, which is the ultimate value and standard of value." [2] It is on this ground that Plato maintained that all ideas were summed up in the Idea of the Good, which is the author of all the rest.[3] It is, indeed, impossible to confine the existence of values to the separate human individual or to the aggregate of human beings.

[1] *Prolegomena to Ethics*, p. 193: cf. Sorley, *Moral Values and the Idea of God*, pp. 117–23. The whole book "begins with a discussion of values and ends with God"; and sets out in detail the line of thought here summarised.

[2] Bosanquet, *Individuality and Value*, p. 309.

[3] *Republic*, vi. 509 B.

"Man did not weave them out of nothing any more than he brought himself into being": [1] they are inherent in the nature of things: we find them, but do not create them. We cannot stop short of the inevitable question, "How is it that the nature of things is so constituted that value emerges in and is disclosed to man by the universe?" And the religious consciousness will echo Socrates' answer when he was asked who was the Maker of the idea of the good, "I suppose we shall say God." [2] Is there any other hypothesis which has a reasonable claim upon us? And if not, are we justified in refusing to accept Theism on the ground that the evidence for it falls short of final demonstration?

And if the universe reveals value, it rises to its highest achievement in the evolution of personality. As we try to trace the development of the creative process, we find the whole of its order so constituted as to make possible the emergence of life, of consciousness, of mind, of reason, of communion with the eternal. Of this last stage we shall have to treat later; but that it represents the present culmination of a rational activity, and, if established, serves to illumine and interpret the whole, would appear congruous with study of what has preceded it. No one can consider with any exactitude the interactions and adjustments of evolution without a profound sense that, despite its magnitude and the bewildering complexity of its detail, the whole is a "Cosmos," and that the appearance of human personality, attained under conditions the appropriateness of which to their product we can dimly comprehend, is no mere fortuitous coincidence.

[1] Pringle-Pattison, *The Idea of God*, p. 246.

[2] *Republic*, 597 B. As Adam, *The Religious Teachers of Greece*, pp. 442–8, argues, the identification between the idea of Good and God is for Plato inevitable. For a modern statement of the argument cf. Rashdall, *The Theory of Good and Evil*, ii. p. 212.

" Rationality is not a lucky accident; it is the fundamental feature of the world." [1] To proceed from the statement that " things are so arranged that personality has resulted from them " to the statement that " things are arranged thus in order that personality may result " doubtless involves an act of faith. But where ordered activity is manifest, it is difficult and perhaps unreasonable to refuse to recognise the hypothesis of a Mind behind it. We can only interpret the universe in the terms of the best human understanding: we must surely do so in the light of its highest and fullest development. If this be personality, then to explain the existence of the whole we are driven to look for One who is not less than a Person. That personality is itself an inadequate term to apply to God, may be argued: at least we cannot choose a lower category.[2] When we find that the most satisfying, and, as they would maintain, the most real experience of our best representatives is of communion with God, we may at least conclude that the onus of rejecting the case for Theism [3] rests with its opponents, and that failing to do so we ought not to stop short of a full acceptance of it. If the position thus outlined rests upon the familiar arguments *a contingentia mundi* and from teleology, it is at least not enough to murmur the name of Kant [4] and evade their discussion on the ground that in their crude form he disposed of them.[5]

[1] Pringle-Pattison, *l.c.*, p. 331.

[2] Cf. Jones, *A Faith that Enquires*, pp. 313–25.

[3] Hoernlé, surveying modern thinkers in *Matter, Life, Mind and God*, notes " the revival of theism as the most striking movement in contemporary philosophy of religion " (p. 194).

[4] Kant himself restated the teleological argument so as to avoid the criticism by which he had demolished its crude presentation.

[5] As is done *e.g.* by Smuts, *Holism and Personality*, p. 342, a treatment the more surprising because he represents the whole process of evolution as culminating in the emergence of the " spiritual values " of Truth, Beauty and Goodness (pp. 107, 345, etc.), and uses language of a definitely theistic character: *e.g.* p. 222.

From the Artist to the Teacher, from the Teacher to the Father, that is the road along which the study of Nature has led us. From wonder to understanding, and from understanding to love, that is our response to its lessons. We are confirmed in our journey by the fact that such has, indeed, been the broad way of man's religious and spiritual progress. Starting with awe and with crude efforts to depict in myth and symbol the object of his worship, developing a passion of enquiry and an elaborated structure of thought and speculation, and rising in the Son of Man to a confession of " our Father which art in Heaven," humanity has trodden the same road through the ages. To find it so is to be convinced that we are heirs of a great succession, representatives of a universal tendency. Behind us is the witness of the ages, a *consensus fidelium* limited to no one race or period or Church, an authority than which there can be none more august among mankind. Here again the doctors of Alexandria have voiced the common faith. Clement, marking out the stages of the true Gnostic's training and having in mind the manifold activity of the Creator Spirit, summarised our life as beginning in faith, proceeding to knowledge, and consummated in love: " For it is said, ' To him that hath shall be given ' : to faith knowledge, and to knowledge love; and to love the inheritance." [1]

Note on the Appearance of *Leucania* (al: *Nonagria* or *Calamia*) *brevilinea*

The appearance and spreading of this species, a dull brownish ochreous noctuid moth totally distinct from any other known to science, and indeed so unlike as to deserve to be placed in a separate genus, seem to supply, as was observed by Barrett,[2] all the evidence that we

[1] *Stromateis*, VII, 10.
[2] *Lepidoptera of the British Isles*, Vol. V, p. 123.

can obtain in the wild state of the " creation " of a new type.

The facts are as follows. During the sixth decade of the nineteenth century the Norfolk Broads were systematically worked for Lepidoptera by William Winter, the schoolmaster of Ranworth. He captured all the specimens he could obtain of the local insects for sale to collectors; and was instrumental in supplying their cabinets with numbers of all the species then known. He never took any examples of *L. brevilinea*, though he worked the exact spot on which it was first taken. In 1864 Mr. C. Fenn captured and recorded in the *Entomologists' Monthly Magazine*, Vol. I, p. 107, a single specimen on Ranworth Fen. This was accepted as a species new to science; but for seven years no further discovery of it was made. One or more specimens in 1871 and a large number up to twenty in an evening in 1873, were obtained in the near neighbourhood. Gradually the moth extended its range over the area, though, with the possible exception of a specimen reported from Belgium,[1] its habitat was strictly confined to Broadland. In 1908, when I visited the district, I obtained upwards of seventy specimens in the space of an hour in a tiny patch of unmown reeds opposite St. Benet's Abbey.[2] The insect literally swarmed there, two and three being captured at a stroke of the net. The reeds sheltered hundreds of them. In addition, I took other examples at Wroxham, Horning and Stalham.

It seems clear that the species is at least new to the Norfolk area; and hardly less clear that its occurrence cannot be explained as due to importation from elsewhere. For not only has it never been found, except in one doubtful instance, anywhere else, but no one imports coals to Newcastle or reeds to the Broads. It is, no

[1] This capture, apparently made in the seventies, has not been corroborated by any further evidence.

[2] As recorded in the *Entomologist*, Sept. 1908.

doubt, impossible to prove that its appearance in 1864 was absolutely for the first time: we shall only be certain of such a step forward in evolution when such an occurrence takes place in captivity. But it is not easy to explain the circumstances otherwise.

The question of its origin is obviously one for speculation. In anatomy and in habits it appears to lie midway between the typical examples of *Leucania* and of *Nonagria*. The larva feeds like *Nonagria* in the stems of reed until the winter, hibernates, and in its final stage quits the stems and eats the leaves like a *Leucania*. On the evidence of its genitalia Mr. Pierce [1] rejects it from both genera and groups it with the allied *Hydroecia*, into which he also places *Calamia lutosa*. Probably this last-named species is the nearest relative and most likely ancestor of *brevilinea*; and the possibility of its being a fertile hybrid, produced by the union of *C. lutosa* with one of the common *Leucanias* must not be overlooked. Unfortunately the habits of the larvae of all these species make experimental work unusually difficult. The problem of their relationships might be worked out on the spot if a patch of reeds were isolated and netted in.

A somewhat similar case is provided by the sudden appearance in a single area and for a very short time of another species, then and since new to science, the Tineid *Oecophora woodiella*.[2] A specimen of this very distinct purple and pinkish insect was taken by a working-man collector named Cribb on Kersall Moor, Manchester, on June 15th, 1829; and in the next few days many more, perhaps fifty in all, were captured. One of these was given to a Mr. Wood, who sent it to

[1] *The Genitalia of the British Noctuidae*, pp. 29, 36.

[2] For particulars of this species, and for the loan of figures and of Mr. Sidebotham's MS. notes I am indebted to my friend, Mr. T. A. Coward. Accounts of its discovery appear in the *Entomologist*, Vol. XVII, p. 52, by J. Sidebotham, and in *Lancs. and Ches. Naturalist*, Vol. XVI, pp. 207–12, by J. C. Melvill.

Curtis. By him it was figured, named and described in his *British Entomology*, Vol. VII, pl. 304. Two other specimens were given away by the discoverer; but irritated that it had been named after Wood, he refused to part with more; and his whole series was afterwards destroyed. The three surviving specimens are now in the British Museum, in Manchester and in Melbourne respectively. The moths were captured on rotten palings and round a hollow tree, either alder or oak. The locality was very thoroughly searched for many years by entomologists; but no further examples have ever been taken either there or anywhere else. In this case the data are too scanty to allow us to state with any confidence that *Oe. woodiella* was a new species. For although Manchester was at that time peculiarly rich in entomologists, the insect is small and inconspicuous, and may have escaped notice if previously present. At the same time the facts that it has never been taken elsewhere, that it was confined to a very restricted locality, and there was abundant, point to the possibility that here too we have the emergence of a new form, which in this case failed to establish itself.

Such instances where it seems that a totally distinct form has appeared suddenly are, of course, by no means to be taken as typical of all development. The Darwinian theory of the evolution of new species by small cumulative changes due to selection and peculiarity of environment can be illustrated by the cases in which a race has been isolated from the parent stock and has developed novel characters, and as some would hold a specific distinctness. Instances may be quoted, as, for example, the moth *Bryophila glandifera* var. *impar*, a coastal insect of which the variety found only in the town of Cambridge is strikingly different from all other forms, or the Earwigs of which Dr. Brindley has made so close a study, or the fish of the genera *Salvelinus* (the Chars) and *Coregonus* (the Whitefish), or the Pheasants of the genus *Phasianus*,

where, " roughly speaking, all the species with white rings round their necks are northern forms, while those without this ornament or with only traces of it are met with farther south," [1] and where the sixteen species, plainly derived from a common ancestor, are now isolated by great mountain-ranges, but when interbred are fertile and give fertile hybrids.

[1] Ogilvie-Grant, *Game Birds*, Vol. II, p. 7.

CHAPTER V

PSYCHOLOGY AND THE INDIVIDUAL

In our brief survey of the progress of thought about the nature and evolution of the world little direct reference has yet been made to a factor of great and growing importance. It seemed best to reserve consideration of psychology for special treatment, although no branch of study has had a larger formative influence on popular opinion or a more honourable share in promoting the general reaction against materialism.[1] For this, so far as the English-speaking nations are concerned, one man is largely responsible. Few, if any, thinkers of academic eminence have contributed more largely to the ideas of the general public, to the "common mind" of educated people which is in these days so real a factor in progress, than William James. He had the rare gift of making technical subjects intelligible, of combining expert knowledge with robust common sense and a charm of exposition which brought his conclusions within the range of those to whom the findings of research take usually many years to percolate. Almost alone among professed philosophers he was great at once in research and in interpretation.[2] And, in consequence, those who best represent the average man, writers like Mr. H. G. Wells, for example,[3] were swift to accept and advocate his teaching.

[1] In what follows I am considering the influence on public opinion, and not attempting to trace the development of scientific psychology. Even so, many important names, *e.g.* that of F. W. H. Myers, are omitted.

[2] Cf. Grensted in *Psychology and the Church*, pp. 34–5.

[3] For the whole of the past generation Mr. Wells has been a reliable wind-vane, revealing in the succession of his books the prevalent tendency of the *popularis aura*.

We are not concerned here with the Pragmatism and Pluralism of James' later works, although there too his influence has not been slight. In psychology by his *Principles of Psychology* and his *Varieties of Religious Experience* he did more than any other to draw attention to subjects of novel and profound importance. He opened up and made familiar what was to most people a new line of approach to the study of ethics and of dogma, a line which no Christian can afford to neglect and of which the results in both fields already promise to be of the highest significance. If in these days the argument from experience has taken a central place in apologetics, if in discussing authority we are concerned with "value" rather than with origin, if the whole "cure of souls" is being studied in the light of our knowledge of psychic process, if many of us look to psychology to supply a fresh method for the solution of doctrinal problems, it is to James that the change of outlook is mainly due. We may challenge some of his postulates and reject many of his conclusions; but as a pioneer, not less than a teacher, we pay all honour to his achievements.

In the popular reaction against materialism not less importance must be attached to the work of Prof. McDougall, even by those who are unable to accept the Animism that he advocates; and as we have to criticise many of his arguments, it is the more incumbent on us to testify to the value and influence, the patience and moral worth, of his work. If the year 1909 marked the zenith of Neo-Darwinianism, the publication in 1911 of McDougall's *Body and Mind* delivered a heavy blow to its pre-eminence. His arguments to demonstrate that mind has certain specific characters to which there is no counterpart in the neural system, and therefore exists and functions independent of a physical basis, were drawn not from metaphysics, but from experiments; and many of these, particularly those dealing with the fusion of

sense-impressions, carried an almost inevitable conviction. Dealing, for example, with the problem of binocular vision, he maintained that the stimuli derived from the two eyes are conveyed to different places in the brain, since there exists "competition" between them. Yet in general the result is a fused or stereoscopic image. For this fusion there appears to be no localised neural mechanism: it cannot be ascribed either to a particular centre or to the brain as a whole, and must therefore be effected by the mind independently. The chapters [1] in which this and similar experimental results are set out form the strongest support yet given to the animistic hypothesis; and their conclusions cannot lightly be dismissed. The problem bristles with difficulties, and the literature in which it is discussed is large and technical. It is outside our scope and my competence to attempt a survey of it here. Sir Charles Sherrington in his *Integrative Action of the Nervous System*,[2] Prof. Lloyd Morgan in his *Instinct and Experience*[3] and Prof. Alexander in his Gifford Lectures [4] have dealt with it in accessible form, and have shown that the facts do not compel the acceptance of animism, though they are hard to reconcile with the theories of psycho-physical parallelism [5] and of associationism.

Prof. McDougall's work in its appeal to concrete evidence and to the phenomena of mental processes [6] made a great and lasting impression upon those on whom the philosophical arguments of idealistic monists and the difficult hypothesis of parallelism could

[1] *Body and Mind*, xx–xxiii, and particularly pp. 286–99.

[2] Lecture X, and particularly pp. 377–84, where sensual fusion is discussed.

[3] McDougall's position is criticised on pp. 272–86.

[4] *Space, Time and Deity*, Vol. II, pp. 13–25.

[5] For a simple summary of the parallelist and interactionist hypotheses, cf. Stout, *Manual of Psychology*, pp. 78–101.

[6] On the philosophical side the book is far less satisfactory, *e.g.* in its criticism of Kant and Spinoza, (p. 159).

produce little effect. If it were true that the unity of consciousness could not be located in the physical system, here was a demonstration of the failure of materialism which the working scientist could not regard as " pure speculation." It aroused a widespread interest in the study of psychology and served to prepare the way for the " New School " whose astonishing development was one of the most remarkable features of the war.

No apology need be made for devoting some space to the consideration of a movement to whose popularity every bookshop bears eloquent witness, and which has become in the past ten years a fashionable cult. In criticising it (and criticism must necessarily be severe) we would dwell not so much on the extravagancies and perversions of some of its leading exponents, nor upon the widespread harm which injudicious propaganda has undoubtedly caused, as on the serious defects of its general method and conclusions.

None of us is likely to forget the first astonishing outbreak of the " New Psychology," or the speed with which it swept over the country in the later years of the war. Like Spiritualism and certain forms of Catholicism, it found in the atmosphere of strain and neurasthenia conditions admirably suited to its growth, and a number of more or less disinterested propagandists were quick to foster its increase. In 1916 psychoanalysis was hardly known outside medical circles, and psychology was a department of science, not a popular craze. During the next two years those of us who were on active service heard rumours, but we were busy and had little time for books. In 1918, when we came back, all our world was discoursing of Freud and Jung, Dr. Crichton—Miller and Dr. Hadfield. " Psychology " was the new " Mesopotamia." Lads and lasses hardly out of the nursery babbled of neuroses and repressions, extroverts and introverts, the Oedipus-complex and the Parsival-*motif*, and publishing houses were pouring

out a flood of sensational literature on the all-absorbing topics of self and sex.

The craze had all the qualities that make for a popular success. Its esoteric jargon, appealing to the priggishness of the half-educated; its claim to secret knowledge, flattering the vanity of its initiates; its miracles, in the startling records of cures from the shell-shock hospitals; its invitation to peer and probe, titillating the introspective curiosity and pruriency of the young; its band of evangelists touring the country at a time when most of us were abnormal and highly "suggestible"—here was a cause irresistible in its fascination, a cause combining the attractiveness of theosophy and of sexuality, a cause which pandered to all the secret morbidities of adolescence. We like to think ourselves unusual—until we grow up; to the analyst there is no such thing as normality. Many of us have a hard fight to control our passions; to the boy tempted by sex or the girl discontented at home comes the message that repression is disastrous. Few can resist the pleasure of picking their neighbours to pieces; here was permission to disclose base motives in the name of science.[1] All the intimacies and decencies of life were convention and prudery: beneath the mask and even below the conscious level lay naked animalism and primitive lust. The baby sucks its thumb; the child plays with plasticine; the schoolboy bites his nails; the student collects butterflies; the house-wife buys a rocking-chair—we need hardly cloak the obvious impulse behind the decorous anonymity of Latin: let us face the facts of life and confess ourselves the beasts that we are.

It is easy, and unfortunately still needful, to protest even with violence against certain features of what was for a time a "melancholy evidence of the weakness of the human intellect."[2] But though the life

[1] As witness the "psychological biographies" of the great written by the mean to minister to their own self-esteem.

[2] McDougall, *Outline of Psychology*, p. 432.

of Freud [1] reads like a pathetic case of developing sexual mania—"a man obsessed with fixed ideas" [2]—though the works of his school "might often be taken for contributions to pornography rather than to medicine," [3] and though the attempt to explain all human activity in terms of sex is admittedly a disastrous failure, the stress laid by the Freudians upon the existence of the "unconscious" [4] self and the development of a technique for its investigation are useful contributions to the treatment of disease, and open up lines of enquiry which cannot be neglected. That there exists in all of us a field of experience possibly of racial and certainly of personal life which is not usually present to the conscious mind, is obvious. Even if we reject Samuel Butler's ingenious attempt to refer all heredity to memory, and confine ourselves to the events of our own lifetime, there is abundant

[1] Wittels, *Sigmund Freud*. Is this a piece of naïve flattery, or of subtle and successful irony? In either case it overthrows Freud's claim to greatness.

[2] *The Letters of William James*, Vol. II. p. 328.

[3] Rivers, *Instinct and the Unconscious*, p. 163, a plea for due recognition of Freud's worth, which, though obviously coloured by the abnormal conditions of war, deserves careful consideration. For a more drastic criticism, see Wohlgemuth, *A Critical Examination of Psycho-Analysis*, McBride, *Psychoanalysts Analysed*, etc. The real pity about Freud is that if he had resisted the temptation to identify love with sex he might have been the teacher for whom the world waits. For we sadly need a psychology in terms of love, not of will. His attempt to represent himself as meaning love when he says sex (*Selected Papers on Hysteria*, p. 203) is falsified by his writings and expressly repudiated elsewhere (cf. *Group Psychology*, pp. 37–40).

[4] Freud avoids the term "subconscious" and divides its content into the pre-conscious (*i.e.* elements not immediately present to consciousness but capable of ready recall), and unconscious (*i.e.* repressed and kept out of consciousness by the censor). His own treatment of it is not free from inconsistency: his followers add to the confusion: the classification and especially the doctrine of censorship, has been riddled with criticism: and I prefer, therefore, to use the more general term subconscious.

evidence that forgetfulness is not solely due to the lapse of time, but is, in certain cases at any rate, the result of a definite, though usually an unwitting, repression. Both the extent and the frequency of such repressions have been, I believe, very greatly exaggerated. The horror and strain of war, and the consequent thrusting out of our thoughts of much which afterwards reappeared in dreams of lurid ghastliness, gave even to the most normal a conviction that repression existed, and fostered the belief that it was probably both general and universal. Many psychologists,[1] in consequence, maintained that a " field " of unconscious or subconscious consciousness was an essential part of every human mind, and used this convenient hypothesis as a solution of every problem of behaviour—with results to reason and morality which gave grounds for grave anxiety. Later examination, while revealing the existence in certain dissociated persons of neuroses arising from forgotten incidents which form complexes in the unconscious, has led to a recognition that these are exceptional and pathological. The ordinary man forgets just because there is no particular reason why he should remember. What is at the moment unconscious can be, if necessary, recalled. His whole self is integrated more or less completely. To picture him as carrying about a vast heap of neglected and unrealised garbage, and to claim that his dreams, however ordinary, are the symbolic revelation of unutterable and primitive passions, is to import into normal life the characteristics of the asylum, to interpret health in the light of disease. And for most of us it is simply false to the facts. " As a matter

[1] Cf., for example, the " Symposium on the Subconscious " in *Journal of Abnormal Psychology*, Vol. II, Nos. 1, 2. On the practical side the theory of a subconscious or unconscious consciousness gave rise both to the Psycho-analysis of Breuer and Freud, and to Jung and the Zurich school, and to the Nancy school of Coué and Baudouin; and from the influence of their work gained its hold upon the public.

of fact," says Sir Henry Jones, "there is no such region and there are no such denizens,"[1] or, as Professor Hocking puts it, "there is no subconsciousness which is out of consciousness."[2] Freud's work is of value to alienists in particular cases: to popularise it is to suggest to the sane that they are mad. If every medical student at the start of his training imagines himself to show symptoms of one of three incurable maladies, the readers of Freudian literature, and it must be added of much of the New Psychology, almost inevitably assume that they are themselves the victims of acute mental and nervous disorder. To set the subconscious in antithesis with the conscious, as if the two were separate worlds independent and conflicting, is to repeat the mistake of those who interpose a rigid barrier between instinct and intelligence, or between germ-plasm and body-plasm. They are all constituents of, and contributory to, the unity of the living organism.

Save for their contribution to the medical treatment of the insane and deranged, Freud, Adler, Jung and their schools can be passed over in the silence meted out to them by the vast majority of serious psychologists, for whom "psycho-analysis was still-born."[3] There remains, however, a very numerous and very various assortment of medical and semi-medical investigators who, while disowning the doctrines and to some extent the methods of Vienna and Zurich, constitute the movement known as the "New Psychology." Containing among its members many great and generous healers, and arising at a time of un-

[1] *A Faith that Enquires*, p. 67. Cf. Lloyd Morgan, *Emergent Evolution*, pp. 168–70. For a brief but judicious criticism of the Freudian theory of neuroses and a constructive statement of their nature, cf. a paper on "Psychic Traumas," by Dr. A. E. Davis, in the *Lancet*, July 17th, 1926.

[2] *The Meaning of God in Human Experience*, p. 537. This section of Hocking's great book is full of value.

[3] Wohlgemuth, *l.c.*, p. 246.

precedented nervous exhaustion, the new school has achieved a wonderful record of therapeutic successes, and from a mass of pathological cases has developed working hypotheses of man's constitution and motive which can appeal with confidence to results for their verification. There is not, indeed, much unanimity.[1] Various writers and practitioners emphasise different elements in the scheme and offer divergent interpretations, as, for example, of the number and the relationships of the instincts. It would be out of place here to deal with these authorities independently. At the risk of doing injustice to some of them, we must class them together; and in view of their influence a note of warning and of criticism will be inevitable.

Broadly speaking, the New Psychology assumes that the driving power and fundamental energy of personality consist in its equipment of instincts, that, however classified, these are common to us all from the lunatic to the saint, and that their proportion will determine the make-up of the individual. In the discrimination of separate instincts there is very wide difference of opinion. Freud and Adler strove to find a single source for all vital activities. Prof. Tansley gives us three centres, the ego-complex, the sex-complex and the herd-complex. Others are more generous or less bent upon broad groupings. Thus, Prof. McDougall in his first book enumerates eleven, and in his second thirteen. There seems little reason why the process should not be indefinitely extended; for the method invites it. This is based upon the observation of behaviour: behaviour implies emotion; and emotion proceeds from an instinctive basis: where it cannot be classified under an already recognised instinct a new one must be posited.

A brief test (and this is a matter of sufficient import-

[1] Hoernlé, *Matter, Life, Mind and God*, p. 130. "Psychology as a whole presents a spectacle of chaos and confusion." He gives a clear account of this chaos on pp. 131–45.

ance to be tested) will supply an indication of the arbitrary character of such procedure. Take, for example, the general tendency towards "home-formation." Observation of children shows that among their earliest impulses is the desire to make for themselves a house of their own, to surround themselves with "properties," to "mother" a family of dolls or teddy-bears, to hold social festivals, feed, clothe and converse with their household; and as they grow up the same impulse manifests itself. How is this tendency explained by Prof. McDougall? It appears, on the face of it, instinctive; the child builds its castles or chatters to its monkey as spontaneously as it seeks its friends or flies from danger. Yet to form a home is not covered by the sexual, the social, the protective, the acquisitive or the constructive instincts, or by any of the rest. Is it then not an instinct, but a sentiment, an idea, like patriotism, derived from environment and education, and made the centre of a constellation of instincts? If so, why should not the social or the constructive [1] instinct be thus regarded? It is only necessary to state that there is similar insufficiency in such matters as play and religion to warn us that analysis here, as always, is little more than a convenient "ready-reckoner." Systems of this kind look well on a black-board drawn out with coloured chalk. They are an aid to diagnosis, and if carefully constructed promote clarity of thought. But as a picture of reality they are too divisive and artificial—a *façon de penser* rather than a scientific presentation of all the facts. As helping us to recognise the dominant elements and general types in humanity, to continue the studies first initiated in the *Characters* of Theophrastus, a

[1] If it be urged that constructive instinct is manifested in spiders' webs, honeycombs or birds' nests, is not the desire for a territory to which Mr. Eliot Howard (*Territory in Bird Life*) draws attention, and which is a preliminary to nest-building, just as much evidence of a home-forming instinct?

survey of the instincts can be of real use : its danger is that of reverting to the old "faculty"-psychology, of treating human beings as mere bundles of loosely-connected and warring tendencies.

That this danger is a real one appears from many of the recent text-books, as well as from the practice of certain psycho-therapists. The Gadarene demoniac stated that his name was "Legion, for we are many." Certain psychologists represent the normal man as, if not a legion, at least a full maniple, and a maniple in a state of chronic and internecine strife. Dr. Hadfield, for example, whose essay in *The Spirit* was a brilliant and stimulating piece of work, in some at least of his published writings [1] appears to set the instincts outside the self and to treat human activity as if it could be reduced to the manifestation of a single instinct. Thus, for example, he identifies a parson's desire to preach with his instinct for self-display—a motive which may well be present, but is, I venture to say, never solely responsible. We all know that a public speaker must overcome the fear of an audience; we can all point to clergy with a passion for advertisement; but in every case where a man's career is involved, though one instinct may be detected as prominent, there is behind it the weight of an integrated personality. Except in the rare cases where there is definite dissociation, every particle of the man's nature is influenced; to isolate one element and assign to it responsibility for his calling is to be led astray by inadequate analysis.[2]

A concrete case may illustrate what is perhaps the

[1] E.g. *Psychology and Morals*. The case of the parson is discussed on pp. 171–2. It is almost impossible to discover in this book a consistent theory of the self. Dr. Hadfield's treatment of the need of wholeness in *The Spirit*, p. 93, is much more satisfactory.

[2] As Hadfield reveals when he states that although analysis has often disclosed this motive, no patient has ever given up his calling in consequence.

gravest defect of the New Psychology—its tendency to deny the wholeness of the self. A friend of mine, a man of thirty-five, a brilliant scholar and a first-rate psychologist, was lately laid up with acute and persistent neuritis. He believed his complaint to have a specific origin; but consented under pressure to consult a prominent medical psycho-therapist. He laid his whole case and his own diagnosis of it before the doctor. His opinion was, perhaps naturally, swept aside. Then being unmarried, he found himself at once being catalogued as a case of sex-repression, treated to a discourse upon the dangers of such repression, invited to yield himself to analysis that the particular complex might be discovered, and then given another lecture on the possibility and limitations of sublimation.[1] Fortunately he knew that the whole diagnosis was mistaken. If not, he might easily have had imposed upon him a disease which the therapist would then doubtless have cured.

This whole method of piece-meal psychology is, in fact, open to serious criticism. In abnormal cases where the patient has received a sudden and disintegrating shock which has destroyed the continuity of conscious control and broken up the unity of the self, a diagnosis by the method of association, or dream-interpretation, or careful analysis may give the physician a clue to the cause of dissociation and enable him to recover the errant or repressed elements and re-integrate the personality. Such integration, as we shall see, is of the essence of all true education and growth. The fault lies in the assumption that dissociation and the repression of one or more disjointed

[1] Sublimation is a term commonly used in the New Psychology to describe the method by which integration can be achieved. It implies the assumption of a specific amount of energy attached to each particular instinct. This assumption, save in certain pathological cases, is contradicted by a great mass of evidence.

instincts are normal and universal; and that in us all any instinct can be treated in isolation from the rest.

A parallel may make the issue plain. It is now generally recognised by physiologists that the human organism cannot be adequately studied under the rigid division into respiration, circulation, nutrition, secretion, reproduction and cerebration, that every part of the system influences every other part, and that, however convenient may be such special compartments, it is with nothing less than the whole that we are concerned. It is an irony that when the sectional treatment sanctioned by Ludwig's time-honoured text-book is being abandoned by students of the body, psychologists should adopt a similar method in their treatment of the mind.[1] No doubt, as a basis of teaching, the general practitioner may well begin with a knowledge of the separate organs and their functions. In his work, though he will, of course, need special knowledge of the seat of disease, he will look at the patient as a whole and consider not only his general health, but the reaction of malady and cure upon him as a human being. In psycho-therapy, where the organs and functions are still more closely connected, and where, as the variety of classification proves, precise segregation of them is impossible, any tendency to isolate one instinct from another or from the self is even more unsatisfactory. It may be justified as a rather " rough-and-ready " aid to therapeutics and as supplying text-books for training. As an adequate and scientific exposition of human nature it fails just in proportion as it concentrates attention not upon the self as a whole, but upon the parts of which it is assumed to be an ill-adjusted aggregate. Analytical methods, as General Smuts has pointed out,[2] are always liable to two forms of error : the elements discoverable by

[1] As is definitely admitted by, *e.g.*, Shand, *The Foundations of Character*, p. 27.

[2] *Holism and Evolution*, pp. 19, 20.

analysis do not represent the whole reality; and these elements though incomplete " become the real operative entities, while the phenomenon to be explained becomes their product or resultant."

This criticism is manifest in the works of the masters of psychological science, the men who can set the new methods against a wide background of knowledge. James Ward, for example, who was described by Dr. Seward as a " founder of the science of Psychology before he devoted himself to more strictly philosophical problems," [1] and who returned in his last great book to the subject which had been his life-long interest, is definite and caustic. His valuation of the work of the " New School " is a " pretended science in the hands of tyros whose psychological training has not even begun," which " occasionally furnishes the psychologist with material of some value; " [2] but, in fact, neither Freud nor Jung nor any of the " moderns " is deemed worthy of mention. Prof. Lloyd Morgan is less drastic, but not less decisive: after playing delicately with the dramatisations of the " literary psychologists," [3] he sums up their work in the words " C'est magnifique, mais ce n'est pas la science "; [4] and his examination of the danger of treating the self as a stage, on which conflicting instincts quarrel and intrigue, leaves his verdict well-nigh unanswerable. Prof. Hocking in his latest book [5] sums up the position by stating: " So much is clear: that instinct is itself an effect, and is not to be taken as a primary cause; and that instinct does not exist in any such block fashion as to serve as a sole and sufficient explanation of any human habit."

[1] Address to the Senate, Cambridge, October 1925.

[2] *Psychological Principles*, p. vii; cf. pp. 433–4.

[3] Of whom A. F. Shand is representative, though McDougall and the " New Psychologists " generally fall under the same condemnation.

[4] *Life, Mind and Spirit*, p. 149.

[5] *Man and the State*, p. 205.

With this general criticism of the new school as an exposition of human nature in its normal[1] state, and in spite of the dangerous tendency to resolve the unity of the self into a multiplicity of inharmonious elements, it is manifest that in its best exponents the "New Psychology" has not only done wonders in psychic healing, but has drawn attention to two issues of real importance. In their stress upon the integration of the personality as the end of sound treatment, and in their discovery of the power of suggestion[2] to achieve this end, they have emphasised vital principles, for which Christians may be deeply grateful to them. Though they often write as if sublimation were an artificial device capable of partial accomplishment at best, they are clearly agreed that to unify and harmonise the whole "make-up" of the individual is the meaning of his cure. To discover discords and conflict, to relate the alien elements to the whole current of vital interest, to build up a fully developed personality, this, whatever the value of their analysis, is a noble synthesis to achieve. If they tend to emphasise disunions, they aim at a complete whole. In doing so they point unmistakably to the power of a dominant ideal, and to the means by which the ideal may be suggested and made effective. And this is, as we shall see, a point on which Christians will join hands with them. We may question certain of their methods. We may, we must, protest that the effects of suggestion, however potent, do not guarantee the truth of the idea

[1] It is notable that some psychologists deny that normality exists—a sad consequence of their constant dealing with disease. Of course, if normal is used in the sense of perfect, then, as Barry (*Christianity and Psychology*, p. 180) urges, Jesus alone is normal. The word is used here as a protest against the belief that all diseases are universal.

[2] Defined as "a process of communication resulting in the acceptance and realisation of a communicated idea in the absence of adequate grounds for its acceptance." Thouless, *Introduction to the Psychology of Religion*, pp. 18, 19.

suggested. We may even feel agreement with Dr. Dubois that " The means for obtaining the ' fixed idea ' are fairly indifferent, provided the healer believe sincerely in his power to cure : religious faith, suggestion by charlatans, suggestion by medicaments and physical agencies, scientific psycho-therapy by the education of reason, all help if they bring about the ' fixed idea.' " [1] We may suspect that the similarity in the cures reported by Freud and Jung and Coué and Dr. Hadfield and Mrs. Eddy and Mr. Hickson and at Lourdes point rather to the power of suggestion than to the truth of any of the theories by which its use is recommended. But it remains that in stressing the value of integration and the integrative power of an ideal, they are doing great service to us. So far as they abandon the sectional basis of their psychology, and recognise that the normal self cannot be safely treated as identical in its functioning and balance with the diseased, they have a contribution to make from which on its practical side much may be learnt.

For persons live and function as selves : the normal man is a unity; and the sane in their measure behave as such. No doubt there are disharmonies : motives and tendencies exist which are not correlated with the master-passion and are liable to distract and weaken its hold : each of us has his moods of depression and revolt. And in proportion as the ideal is low, it will fail to satisfy. But what is wanted is a worthy object to which the individual can devote his whole energies, which shall grip and unify and inspire; only as he can see and occupy himself in relation to a single large purpose will be find peace and power.

The failure of the piece-meal treatment has long been recognised by students of moral theology. Examination of acts of sin, however classified, is valuable

[1] *Les Psychonévroses et leur Traitement moral*, p. 247. Quoted by Pfister, *The Psycho-analytic Method*, p. 439. Cf. also Dearmer, *Body and Soul*, pp. 89–94.

as leading on first to the discovery of sinful motive and then to the recognition of a sinful state. I speak contemptuously of others in spite of continual efforts to bridle my tongue: mere avoidance of scorn can be achieved, no doubt, by repression and self-discipline, by fleeing from occasions of offence or exercising watchfulness during them. Thus treated, I become increasingly self-conscious, dramatising my "pet demon" and waging war against him. Obsession and distortion of character result.[1] Probe below the sins, and a wrong motive is disclosed, vanity, the same self-consciousness which my effort to cure myself by concentration has subtly flattered. I am bolstering up my own conceit by decrying the worth of others, and by trying to restrain myself from doing so. I realise that what is wrong is my whole attitude not merely my instinct of self-assertion. It is *I* that am wrong: and I can cure the wrong by concentration upon a worthy ideal, by a glimpse of God, and of these others in His light, and in consequence by a new friendliness, generated by an absorbing desire to express my glimpse in service to Him. As I forget myself in the joy of work, I become companionable; the worth of others thrusts itself upon me: without thinking particularly about their feelings or my own tendency I find myself interested, admiring, sympathetic. And the sin just dwindles away, starved out by the diversion to healthier tasks of the energies used in exercising or resisting it.

This is quite obviously the method of Jesus. Men came to Him, as did the paralytic or the rich young ruler, with their ailments and needs. He assigns the

[1] Most of the manuals for self-examination, so popular in religious circles, are better fitted to produce prigs and pharisees than Christians. They infringe the "Law of Reversed Effort," which in such cases holds good, whatever be the objections to its universal applicability (cf. Barry, *Christianity and Psychology*, pp. 50–64).

symptom to its source, the paralysis to the sense of guilt, the unrest to the love of possessions, and then straightway confronts the sufferer with God, God as He sees Him, God with His compelling demand. And where there is recognition and response, the miracle is wrought and the man healed. The diagnosis helps the patient to get away from the superficial to the radical disease, to recognise his own misconceptions and wrong relationship. It is not stressed, and sometimes seems to have been omitted. What is needed and given is always the same—a new manifestation of the divine, a new vision of life as God wills it and we desire it, a new contact with the Spirit to set the man's career against a wider background, to inspire him with a satisfying passion, to give him an experience of the reality and wholeness of life, to discover in him a sense of the spiritual: that is His way of healing. He brings to man a revelation of his end; the psycho-analysts too often bring only a reminder of his origin. His method was always to make a man forget himself by caring absorbedly for others and for God, to lose his life and find it; theirs seems frequently to be that he may "know himself, accept himself, be himself." [1] St. Augustine [2] may indeed have said that *Γνῶθι σεαυτόν* was a command that descended from heaven—a compliment to paganism which I wish I could endorse; he would have had something quite vitriolic to reply if anyone had suggested that the other two ideals were tolerable. Of course, if my "self" is a mere bundle of instincts of known number and exact dimension, then let me tie the bundle up neatly and make the best of it; but if this elusive personality, with its queer and satisfying aspirations and relapses and struggles and touches of the eternal, is not just a machine with wheels that get out of order and a definite maximum horse-

[1] Hadfield, *Psychology and Morals*, p. 181.

[2] This is often stated: I cannot find that he did so. Juvenal, *Sat.* xi. 27, is of course familiar.

power, but a living thing indefinitely variable, constantly readjusting itself to circumstances, capable of incalculable achievement or of pathetic meanness, in some sense master of its fate; if its freedom is not an illusion, and its possibility of spiritual experience not a lie, then we must not allow ourselves to fall back into the old error of the mechanistic materialist. "When the human mind invents or encounters the mechanistic theory of the organism, it is confronted with an apparition which it at once recognises as the darling of its adolescence and the symbol of its power—a machine." [1] The danger is a very real one: such cherished analogies die hard; and when by their aid we have given an account of anything, we pass readily on to the wholly illogical conclusion that we have also accounted for it. Our analysis leads to an incomplete synthesis, and is inadequate as an explanation of reality.

For a philosophy of human nature in which the findings of the New Psychology can be given proper proportion and background we must go to those who are more largely equipped, who are not concerned only with analysis, whether into the old-fashioned faculties or the modern instincts, but who "grasp that transcendental synthetic 'unity through apperception,' which is the key to all the categories and the supreme principle of knowledge." [2]

As traced out by them, the development of normal personality can be represented with a large measure of agreed conviction. The entity is, indeed, from first to last one and indivisible. Its component parts—body, life, mind; emotions, intellect, will; instincts, sentiments, complexes (classify them as we may)—exist in relation to the self,[3] and function under its

[1] Darbishire, *An Introduction to Biology*, p. 85.
[2] Ward, *Psychological Principles*, p. 433.
[3] Cf. Henry Jones, *A Faith that Enquires*, p. 65. "Occasionally an attempt is made to give priority to feeling or to the

guidance, whether as " properties " or as attributes.[1] But the mode of functioning differs with growth. At first there is merely generalised sensation and consequent behaviour corresponding to that of organisms lower in the scale of life, the body appearing to contribute most largely to the activity of the whole. As the child develops, there is obvious differentiation : the individual becomes conscious of himself and of his organs and faculties. There is a period of what the Stoics called " diastole," of expansion and catabolic movement, when the self seems to be split up into a diversity of discongruous elements. It is to this phase that the analytical methods are most applicable, when conflicts arise within the individual consciousness, and the various aspects, self-consciously studied, are dramatised as warring influences.

All of us are aware, often for long periods, of this " strife in our members," of the unrest which accompanies the clash of desires, and of the lack of any co-ordinating purpose. It is in the failure to achieve integration, in the relapse into dissociated moods, in the conscious or half-conscious acquiescence in unregulated tendencies, that personalities too often make shipwreck, either breaking down (physically or mentally) under the strain of conflict or abandoning any real desire for an effective synthesis. To become a twisted and neurasthenic invalid, or an amiable nonentity with no character at all, is fatally easy—though, in fact, few normal persons succumb to either alternative. The impulse towards unification of some sort is too strong; the self is too much the master of its functions; and by far the greater number of human beings attain

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intellect or to the will—the will is probably the favourite of the moment. We may assume that the self is one and whole in all that it does."

[1] Ward, *Psychological Principles*, p. 443, deems the body rather the former than the latter. In this, others would disagree with him.

in some measure poise and integration. For this they need an ideal; and the measure of their personality will depend upon the worth of their central and dominant purpose. "Man," says Ward, "good or bad, is more of a person, has psychologically more character the more he shows of singleness of aim, the less easily he swerves from this, and the wider and more coherent it is." [1]

This organisation of the self is for normal individuals the necessary outcome of self-consciousness. The child spends its early years in discovering new faculties and an enlarging environment, to which it strives more or less consistently to adapt itself. It must find its place in the scheme of things, forming, through the medium of its endowment, or, as Ward has called it, its *Anlage*, a stable relationship between itself and its circumstances: it has to discover whether it be a square peg or a round, and to fit itself into a hole of the appropriate shape. Acting upon its surroundings and being acted upon by them, it seeks a satisfying adjustment where its hereditary talents and particular genius shall be able to function as an entity. The period of diastole, of catabole, of expansion and differentiation, leads on to a systole, an anabolic movement, a concentration and unifying. It is a process analogous with the thesis, antithesis and synthesis of the Hegelians, a rhythm similar to that which Prof. Geddes traces in the whole evolution of life. And to us all it is familiar as our development from youth to maturity. Every normal human being "ranges himself" thus, fashioning and fashioned by his world, discovering and contemplating himself as an organised person who plays his part in his own scheme of things,

[1] *Psychological Principles*, p. 468; cf. Temple, *Christus Veritas*, p. 59: "The man will only be altogether himself if he can succeed in so organising his nature and his activities that all his various capacities and impulses have scope in the maintenance and promotion of a life through which they find their expression."

and endeavouring to approximate his actual conduct to the standards of the self thus dramatised. There is a great passage in Tolstoi's *Resurrection*, in which, commenting upon the need of every soul to see itself in relation to some philosophy of life which shall give an air of worth and dignity to its activities, the novelist sketches the religion of the prostitute who is his theme. Browning has done the same for the subjects of his Monologues, Sludge and Blougram, Pompilia, Guido and the Pope. And it is the prerogative of all who have reached the level of reflective judgment to form and contemplate such universalised concepts of themselves. "Each one of us is himself the dramatist in virtue of constructive imagination; himself contemplated as an actor in the imaginative drama he constructs; himself also a privileged spectator in the audience before which the play is enacted." [1]

This "ideal self playing its part in an ideal community," [2] though in childhood and in cases of arrested or distorted development exaggerated, fantastic or even dissociated, is for the normal adult the object towards which his endeavours are directed and the standard by which he judges his achievements. With experience the extravagances of "phantasy" are rejected: we learn, in vulgar phrase, "to cut our coat according to our cloth," to correct our estimate of ourselves as we really are without forfeiting our concept of ourselves as we desire ideally to be. In accordance with this self-accepted pattern we regulate our activities, co-ordinate our faculties and build up our individualities. My actions are guided more or less consciously by my concept of the ideal me; my conflicts are resolved as the differentiated elements and competing motives are directed towards its realisation; I strive to live up to my best, and in so doing find a powerful incentive towards integration of character.

[1] Lloyd Morgan, *Life, Mind and Spirit*, p. 261.
[2] *L.c.*, p. 260.

That there are dangers in the inevitable possession of an " ideal self " is plain enough. Failures ranging from the lunatic who believes himself to be a poached egg to the characters in *Dear Brutus*, for whom the ideal is a comfortable " compensation," are not hard to find. The whole business of life consists in the double task of keeping the ideal high and of persisting in the effort to achieve it; and in both respects all of us fall short. We accept unworthy ends, and even so debase them still further in order to bring them within our reach; or we acquiesce in recognised inconsistency and console ourselves by the ingenious excuse that we are idealists. But difficulties do not absolve us, and disasters must not daunt; for such efforts are the whole glory and danger of our calling as men, and we are so constituted that we cannot forego them without forfeiting our manhood.

It is, indeed, the special province of education [1] to see first that a satisfying ideal is set before us, and then that we are so organised and equipped as to strive worthily for its realisation. If we are to be effective, we need a master-motive which shall embody for us the economic, moral, aesthetic, rational and spiritual values, which shall draw out our affections, co-ordinate our thoughts and stimulate our wills, which shall give guidance and scope to every element of our personalities, and shall initiate us into the fullest measure of fellowship with the rest of humanity. Where the motive is less than this—where, for example, it is presented solely as a scheme of thought or a means to happiness, or is based on a " class " or national outlook—it will correspondingly fail to promote the development of a full and integrated personality. What is required is that " the whole spirit and soul and body be preserved

[1] As set out, *e.g.*, by Maxwell Garnett, *Education for World Citizenship*. Though I cannot altogether agree with his treatment of psychology, his conclusions are practically identical with mine.

blameless,"[1] that the complete self be built up with perfect poise and due proportion "according to the effectual working in the measure of every part" into a "full-grown man."[2] And for this end neither a useful career, nor a consistent philosophy, nor a code of ethics will suffice: these must be embodied in an ideal which shall call out love,[3]—that is, in a Person. It is not without significance that the earliest Christians described their religion not as a creed or church, a ritual or a morality, but as "the way."

For we cannot pursue our ideal, nor should we think of it, as if the separate elements of our natures could each be separately satisfied or could one by one be attached to its service. To picture human development as the laborious piecing together of an intricate puzzle of instincts and sentiments stimulates only a highly self-conscious and meticulous priggishness; and is, in fact, based upon bad psychology and inadequate experience. Some of us, at least, have tried that method and realise its futility. Possibly it is a necessary stage in education that we may by painful experiment reach a sufficiency of self-knowledge and in good time self-distrust. But if such a procedure merely ends by convincing us that "we have no power of ourselves to help ourselves," we need not therefore despair. Periods of unrest and often profound melancholy are commonly the precurrent condition of

[1] 1 Thess. v. 23. Ward, "The Christian Idea of Faith and Eternal Life," *Hibbert Journal*, January 1925, recognises this doctrine of the threefold nature of man.

[2] Eph. iv. 16 and 13.

[3] Cf. Lloyd Morgan, *Life, Mind and Spirit*, p. 278: "As a matter of emphasis on what seems to me central, the knowledge begotten through reference, and the conduct which is the outcome of endeavour are enlisted in the service of joy and love to the end of developing within the person a self of enjoyment, with communal status. . . . I assign primacy to love." Garnett, *Education for World Citizenship*, presents Christianity as satisfying the mind and the will, rather than the emotions.

spiritual enlargement. The individual cannot attain fulfilment and unity *per se*, though a long and painful struggle may be necessary before he realises his inability. When he is rapt out of himself by the inspiration of his ideal and surrenders himself to its sway, when there emerges in him or descends upon him that which Christians call the Spirit of God, he is aware that, if only for a moment, he has been at one and complete. "Whoso loseth his life for my sake shall find it," [1] said the Master; and His disciple could confess His truth: "I live; yet not I, but Christ liveth in me." [2]

This discovery of our selves in relation to a single aim and adjustment of our activities to it is, if we may use the term in its wider sense, a "conversion." [3] In many, perhaps in most, normal individuals there is this experience when from the ferment of changing desires and unanswered questions and experimental actions there emerges a conviction of unity and of design. That such an event has often been associated with visualised images or the sound of voices, and in a large number of typical cases produces a sense of immediate and external influence, has led to the belief that "conversion" is peculiar to a definitely religious temperament. To limit the phenomenon in this way is, as Starbuck and others have demonstrated,[4] unjustifiable. Such change is a regular feature of adolescence, and is by no means confined to those who

[1] Matt. x. 39, xvi. 25; Mark viii. 35; Luke ix. 24, xvii. 33; John xii. 25. The most oft-reported saying in the Gospels.

[2] Gal. ii. 20.

[3] Cf. Pratt, *The Religious Consciousness*, p. 123: "The essential thing about conversion is just the unification of character, the achievement of a new self." The subject is admirably treated by Dimond, *The Psychology of the Methodist Revival*, pp. 191–207, and by Underwood, *Conversion: Christian and Non-Christian*, especially pp. 177–96.

[4] *The Psychology of Religion*, p. 224; cf. James, *Varieties of Religious Experience*, pp. 166–258.

connect it with the symbols or doctrines of religion. Dr. Havelock Ellis,[1] for example, has given an account of his own conversion which should be read by those Christians who regard such an event as their special prerogative. Nor does it seem easy to draw a line between cases in which the adjustment is catastrophic and those for whom it is effected without dramatic crisis. Broadly speaking, Francis Newman's division between the once-born and the twice-born is a useful classification : but, as James himself admits, there is for both types this re-orientation of life to a dominant idea, this emerging integration of personality. Extreme examples of the two classes differ almost totally, but the majority of us are hard to segregate into one or the other,[2] and for us all " conversion," slow or sudden, is of the essence of development. The mere process is not in itself any more necessarily religious [3]—unless we use religion to describe any dominant idea—than is birth or " coming of age " : it is in the character of the integrating ideal—a character whose worth has to be tested by other means than the bare experience of its power—that the religious quality of conversion is to be found. When this ideal is so rich in value that the whole self can be absorbed in it, then in such receptivity and response the individual reaches his fullest development : " the self is capable of complete satisfaction in proportion as it is left outside the field of its own attention." [4]

Yet " this new birth by which a man ceases to be a mere psychological thing or a divided self and becomes a unified being with a definite direction " [5] is not the

[1] *The Dance of Life*, pp. 215–22. Pratt, *l.c.*, pp. 128–9, quotes very many others.

[2] As James admits, *Varieties of Religious Experience*, p. 488. Pratt, *l.c.*, pp. 148–64, deals admirably with this whole matter.

[3] Cf. the instances of conversion to infidelity, to avarice, etc., in James, *Varieties of Religious Experience*, pp. 176–80, and Starbuck, *The Psychology of Religion*, pp. 137–44.

[4] Temple, *Christus Veritas*, pp. 28–9.

[5] Pratt, *l.c.*, p. 123.

end, but only the beginning of our full development. For the individual, though as thus converted possessing personality, is not a lonely self-contained unit, but from first to last a member of society. For us in Western Europe, and particularly since the Reformation, the necessary and valuable protest of individualism has obscured, and sometimes even denied, the realities of corporate life. Thought, both political and religious, has been in terms that have tended to treat society as a simple and often fortuitous aggregate of essentially isolated entities, to resolve the republic into its citizens and the Church into its members. And against such anatomising, the very words that we use to describe the constituents of a group are a warning. It is, in fact, impossible to discuss the processes of personal life as if each of us existed in a vacuum. Robinson Crusoe and his likes may have been convenient symbols for the earlier economists: the "child of God," who had relations with his Father, but not with the family, was apparently a type familiar to Puritanism. If so, it is not surprising that conclusions thus reached were inadequate. "No man liveth unto himself" is a text which would be a truism if it had not been notably neglected. To examine its implications and to see in what sense we are "members one of another," will be to set the whole of our enquiry in a wider and a truer perspective.

Note on the Disintegration of Personality through Shock.

The stress laid by Freud and the majority of New Psychologists on the Subconscious received an emphatic though transitory endorsement from the victims of the World War. Those who were suffering from the effects of shock found it easy to believe in what Prof. Hocking calls, "first, a division that does not exist; and second, a superhuman resource which is different

from the resource of our simple waking selves"; [1] for they were diseased and abnormal and ready to accept their condition as universal. My own case is typical of very many, and will illustrate the psychic state which made Freudian ideas plausible to normal persons who would otherwise have rejected them as appropriate only to the mentally deranged.

During the earlier part of my time under fire the strain was not excessive; indeed compared with my expectation the reality was not only less terrible, but was mitigated by fellowship and excitement and physical health. In the autumn of 1917, when I had been six months in the line with the Second Division, we were taken out, trained for action, despatched to our objective in the Salient, halted at Wormhoudt, and then suddenly on the night of Nov. 23rd entrained for an unknown destination in the South. It was suggested that we were going to Italy—the paradise of the B.E.F.: we listened to the rumour, wishing to believe it. After the long weeks of anticipation, complicated for me by grave anxiety about my wife's health, the reprieve aroused hopes long since abandoned. And then on passing Doullens we swung to the east, and realised that we were going to the battle of Cambrai. The discovery effected for me an immediate liberation, a peace and enlargement of vitality. With the prospect of a definite goal, anxiety and fear left me. We detrained at Achiet-le-Grand—I sat sketching the battered *estaminet* at the station till I could be of use. We marched through the devastated area, spent uneasy nights at Borastre and Beaumetz, and on the 26th went into action outside Bourlon Wood. The whole drama was intensely vivid, and I lived every moment of it; but it was staged against a setting of larger experience, and though an actor in it I was not unconscious of the eternal background.[2]

[1] *The Meaning of God in Human Experience*, p. 537.

[2] This psychic state, familiar to all readers of the *Ad Diognetum*, is more fully described below, pp. 205–7.

Three days later the strain reached its climax. That evening I had a narrow escape while burying one of my men; and afterwards was caught by shell-fire on a sunken road, and kept there for over an hour while a single gun dropped high explosive upon it, never more than a hundred yards away. Shells came every half-minute: one heard the gun, the swish of the missile, the scream of its descent, the crash of its bursting, the whirring of the fragments; and for cover there was a scrape in the side of a bank. That night the principle of compensation came to my help. I slept at broken intervals; and at once found myself on a bird-haunted island; spray and rocks, the nests of the sea-fowl, their cries and wheeling flight live still in my memory, although at the time I had never seen such a place, or indeed thought of it since the days of childhood, when I revelled in pictures of puffins and guillemots on their ledges of terraced cliff. During the tremendous fight of Nov. 30th (I was with the 1st Berkshires, and their deeds are recorded in despatches), and the days of acute danger that followed, my dream-land was always the same. Sleep meant escape to scenes of refreshment. The shock had done its work—had given me the beginnings of a disintegrated self: the subconscious had become partially dissociated.

After my return from France a similar experience awaited me. As soon as I got home and realised that danger and anxiety were over, my nights became filled with horror. At the front I had never known a nightmare, had never dreamed except of my island. In England my days were spent in the peace of the Fenland; but the nights saw me facing terrors far more ghastly than I had consciously undergone. Gruesome wounds, mangled corpses, torturing suspense, naked panic, the reek of high explosive, the shock of violent death—these came to me with sleep, until I dreaded bed-time, and would wake bathed in cold sweat and hardly not screaming with fear.

Fortunately the character of my work and my knowledge of my condition compelled me to talk about the worst of my war experiences, to recover and describe the actual scenes on which my dreams were modelled. And I lived out of doors with the children and with birds and butterflies. In a month or two I had re-integrated the dissociated elements, and recovered poise and psychic unity. But for years afterwards the strain of Armistice-tide with its memories and its sermons brought back similar though less violent horrors.

Such a personal reminiscence only merits description because it represents a very ordinary and typical experience, and accounts for the ease with which many of us after the war accepted for a time the account of the "subconscious self" popularised by the New Psychology. In my case dissociation was never complete: there was no definite duality,[1] nor any evidence of a censorship or of repression in the technical Freudian sense, since I could recall my dreams and experiences to consciousness, and the impulse towards suppression was not hard to overcome. But if the trauma had taken place in infancy or with a less normal temperament, the case would have been similar to those reported by psycho-therapists and familiarly known as shell-shock. All of us who have the "cure of souls" have to deal on occasion with such dissociation in its advanced stages: for myself, I cannot regard it as more characteristic of mankind in general than are physical mutilations or defects. Indeed the analogy between physical and psychic seems legitimate. Strictly speaking no one of us is perfectly healthy: we need not on that account assume that one whose heart or digestive organs are unsound is also suffering from

[1] The classic cases of such Co-consciousness are those studied by Dr. Morton Prince, cf. *The Dissociation of a Personality*; for fuller discussion of such states, *The Unconscious*, especially ch. vii.

broken bones, or that an incompletely integrated self involves the possession of a dissociated subconscious.

It may be well to add that certain psychologists, of whom Dr. Crichton-Miller may be named as a good representative, will urge that I misrepresent the case for the subconscious by assuming that dreams can be taken in their natural or " manifest " meaning. They argue that the real contents of the subconscious are so different from those of the conscious, so crudely primitive and so rigidly repressed, that when they appear in dreams they are " camouflaged " by an elaborate symbolism. The psychologist must interpret the symbols, and will usually find a phallic [1] meaning behind them. Those who reject such a theory are roundly accused of being ignorant, prudish and hypocritical, because subconsciously aware of elements in their nature which they dare not admit.

There are three points to make in reply. First, it may be argued that a working parson gains intimate acquaintance with a wider range of human character than a specialist in psychic diseases, that he is not afraid to face the facts and knows the power of the latent motive and the perversions of sexual instinct. He has studied the works of Dr. Havelock Ellis and has learnt something from Freud, and Jung, and Dr. Ernest Jones. But he knows also the attraction of the sweeping generalisation, and what Prof. Hall [2] calls " the most insidious danger of inferring from the morbid to the normal." And he maintains in all sincerity that such a theory of the subconscious is not true to the facts. Secondly, the attempt to explain human nature in terms of primitive need too often results in blindness to the complexity and the

[1] Freud, from whom this theory is drawn, insists that all dreams are phallic (cf. *The Interpretation of Dreams*, pp. 241, 257, etc.) : Jung and his school allow a less exclusive symbolism, finding it mainly in primitive legends.

[2] *Life and Confessions of a Psychologist*, p. 409.

grandeur of its quality, and in special pleading so grotesque as to appear disingenuous.[1] If it be granted that humanity has certain primary and animal instincts as its original motive force, even then it is not necessary to assume that there is nothing more in us than such a heritage. Yet certain psychologists, confronted with a mass of evidence conflicting with their assumption, "appeal to the unknowable to explain the contradictory," [2] assert the dogma that such instincts exist universal and unchanged but in the subconscious, and prove their case by exhibiting samples of disease and far-fetched interpretations of dreams. Lilies may be coarse feeders: their flowers do not therefore smell of manure, nor can they be estimated in terms of their bulbs.[3] Thirdly, the search for cryptograms and symbolism is an obsession familiar to us all. To look for the "hidden hand" or the hidden meaning amounts in some cases to a mania. For the dream-interpreting psychologist the ingenuities of the subconscious take the place that the Mosaic Law holds for the Kabbalist, or the Book of Daniel for the Second Adventist, or the plays of Shakespeare for the Baconian, or the machinations of socialism for Mrs. Nesta Webster. Literature, and the asylums, are full of such people; and occasionally their search for clues yields a startlingly plausible result. Clement of Alexandria in his exegesis of Scripture shows the method at its best: under his manipulation any text, however plain, can be made to yield whatever meaning will fit his theory. It is a fascinating pastime; but the scientist or the historian may be forgiven if he hesitates to take it seriously.

There is indeed a naiveté about the Freudian doc-

[1] See, for example, the treatment of religion by Hugh Elliot, *Human Character*, pp. 86–98.

[2] Pratt, *The Religious Consciousness*, p. 55.

[3] Cf. Thouless' parable of the decayed acorn, *An Introduction to the Psychology of Religion*, pp. 138–9.

trine which would be almost disarming if it were not so pretentious. Here in our dreams is revealed an intelligence so subtle, so ingenious, so completely a master of evasive symbolism that it inevitably outwits the poor efforts of our mere reason: and this intelligence is unconscious. Here for their interpretation is the method of "free association" in which the victim's duty is to reduce himself to a state of extreme suggestibility while the analyst looks for and therefore suggests sexual images which he can then produce as evidence of his diagnosis. Here is a philosophy of humanity in terms of crude determinism, humanity an automaton controlled by unconscious wishes under the pressure of primal instincts, an automaton which the analyst can cure by instilling knowledge of its real state and appealing to its conscious effort. And the author of this *farrago* acclaims himself as the peer of Copernicus and of Darwin.

CHAPTER VI

THE PERSONALITY AND THE GROUP

We have thus far been concerned with the psychological analysis of the self in terms of its growth, nature and development, with the objective study of the process by which in normal people an effective character is achieved through the integration of the elements of individuality which are given poise and co-ordination under the dominance of a single wide and attractive purpose. Purely analytical methods, as now so generally practised, seem inadequate to demonstrate the unity of activity which is, in fact, discovered and displayed rather in creative achievement than in critical introspection. We must now turn from the consideration of what can be learnt by study of the "self for contemplation" to the evidence of the energies of the "self of enjoyment." [1]

At the outset we are met by one of the most intricate problems of psychology. It is manifest that between the standpoint of experience and the standpoint of exposition, between the "pure ego," as Ward calls it, and the "empirical ego" as this presents itself to our consciousness, there is a clear distinction. Despite the assertions of Kant and his British followers, it is hard to maintain that there is no knowledge without self-consciousness: [2] "Knowledge," says Richardson, "is a relation between two entities, so that evidently

[1] The terms are from Lloyd Morgan, *Life, Mind and Spirit*, pp. 253, 257.

[2] Cf. James, *Principles of Psychology*, Vol. I, p. 174; Ward, *Psychological Principles*, pp. 361–80.

the subject cannot know itself." [1] The study of the self by methods of introspection is therefore, as the behaviourists point out, inadequate and liable to mislead. No one will dispute the value or, to some extent, the validity of their protest. But we cannot on that account fall into the far more manifest error of seeking to confine psychology to the sole study of the mechanism of behaviour.[2] To do so is to repeat the crude error of the materialists, or at least to rule out as irrelevant to the psychologists the most characteristic achievements of human experience. We may leave the dilemma thus propounded to the philosophers; for though we may not be able to know the self or be conscious of its character when it is absorbed in activity, we all realise what the self is, and can recall before our minds a concept of it as so acting. There has been, as I remember it, an absence of self-consciousness, of the conscious competition of rival motives, of any distraction of attention: the self has functioned as an entity. Looking back at the scene, I may recognise that the self was irritable, or afraid, or sociable, or enjoying its children, or hunting after a bird's nest, or curious about God; but no one instinct nor combination of instincts can do justice to the completeness of my interest: as well expect a carbon photograph to reproduce the scents and sounds and warmth and colour and perspective which make up the charm of summer woodland. By a process of artificial and mechanical simplification I can reduce my personality to terms of the instinct of aggression or of a disordered liver; but at no time whatever am I just that and nothing more; and to dramatise these elements in the fashion of

[1] *Spiritual Pluralism and Recent Philosophy*, p. 19. For comment cf. Sorley, *Moral Values and the Idea of God*, pp. 200–5.

[2] As is done, for example, by Watson, *Psychology from the Standpoint of a Behaviourist*. For the radical behaviourist there is strictly no such thing as psychology; cf. Lloyd Morgan, *Life, Mind and Spirit*, p. 47.

primitive demonology is not to give a true or a scientific account of my functioning. There may have been demoniacs; there may be mental or physical invalids who can be best treated by isolating an instinct or an organ; a normal living person is not merely the sum of his parts; he is an entity one and indivisible.

That this self is most completely a true personality when it is most concentrated upon the achievement of a single purpose, and that its power varies with its concentration, and its concentration with the quality of its aim, is not hard to show. When we are so set upon our end that every fibre of our being responds to the stimulus, there is released in us an energy in other moods utterly unrealised. Every athlete knows that if he would win his race he must, when making his effort, lose all consciousness of his competitors, of his condition, of the surroundings, of all except the tape at the finish. The oarsman is not told to "keep his eyes in the boat" simply that he may keep time with the man in front; but that he may learn to fix his attention on the task, and so in a race be able to forget every other consideration and "get the last ounce" out of himself —that ounce which is available only when the self is totally at one. When we are braced by the excitement of effort, or fused in the flame of righteous indignation, we become possessed of sources of power to which in less intense moments we have no access. In our ordinary activities we dissipate our interests half unconsciously over a large number of relatively trivial details. When, for example, I sit down to write, though my mind is so far concentrated on its object that I am indifferent to any ordinary interruption, I am still conscious of the temperature of the room, of the fittings of my desk, of the vague noises of the household, of the ringing of the telephone bell, of a score of facts in my environment. Yet at moments of real unification this consciousness is for the time canalised into one channel: I am deaf and blind to all save one

compelling purpose, to the accomplishment of which every atom of my being is devoted, and the appropriate functions are stimulated into tingling vitality. There is at once a tranquillising into unconsciousness of the ordinary outlets of activity and a heightening of the particular centres required for the end in view. The effect thus combines the respective characteristics of hypnotism and of drugs : in the hypnotic state we are freed at first from concern with, and then from consciousness of, our distractions and circumstances; and stimulant drugs increase the available supply of energy and for a time " speed up " the whole process of life. And this resemblance is more than a mere analogy. A strong motive takes the place of the crystal-gazer's globe, and as attention is focussed upon it induces a quiescence of all other activities, and at the same time, through the agency of the endocrine secretions, floods the requisite tissues with the appropriate stimulant.

We have been considering hitherto those brief and usually sudden crises in which the whole person is keyed up to a tense pitch of concentration. For the experience of vital energy realised at such times is familiar and significant. But in fact a similar unification of the self is accomplished in some degree by every active pursuit of an ideal. In proportion as the self is devoted to the attainment of an end, it achieves the power to function as a whole, to bring all its energies into tone and co-ordination, to realise spontaneous and effective vitality. All creative work involves a similar release from distraction and an unself-conscious concentration. And when the ideal commends itself to us and satisfies the whole of our natures, the power aroused by it is proportionate to the zest that it inspires. A low motive even for low people leaves room for conflict : there exists along with it a multitude of doubts and repressions which dissipate our activity and inhibit the full flow of energy. As we discover an aim which

can consecrate to itself all our faculties and fulfil all our needs, creative effort becomes easier and more joyous and more effective. An illustration from the field most familiar to me will make the facts plain.

Take the case of a parson, of one whose business it is to infect others with the sense of God, to evoke in them communion with the eternal; and take him in his characteristic function as preacher. For his work, like all others, he must prepare himself, collecting, arranging, digesting the material for his sermon; but his medium is not merely argument or gesture; it is his own whole personality. He must not talk about his subject, so much as live it; an objective presentation, as in a lecture or statement, is insufficient; for he is not aiming at the information of his hearers' minds so much as at the more subtle and permeating transmission of his personal experience to them. Words and phrases, emphasis and delivery, are only the technique; even the scheme and contents of his discourse are only the means to its central purpose: he is to impart a sharing of the Spirit, and that cannot be done except by the activity of his whole and integrated self in contact with their selves. He must for the time *be* his sermon, giving himself,[1] as gripped and saturated by his ideal, to his audience, giving not merely ideas to their minds or emotions to their feelings, but person to person. To attain this, his study of his subject-matter and method must be succeeded by a period of collectedness and concentration, when he deliberately ceases to be concerned with technical matters and fixes his attention solely upon his theme, upon God and God's people, shedding his self-consciousness and surrendering his critical detachment, throwing himself, as we say, into his subject unreservedly. When this is accomplished, he can liberate and make available a real creative power,

[1] "You gave us yourself" is a frequent comment upon any real sermon.

welding together the members of his congregation and enabling them with himself to apprehend their common ideal. The analogy of the conductor of an orchestra [1] is perhaps the simplest and closest, though all representative activity will supply a parallel. The conductor has his score, which, like the preacher's knowledge of God, is an approximate rendering of the reality: he has to convey his interpretation to his fellows that they may together, each in his own function, realise the master's purpose and express it in music or worship. If a perfect result is to be attained, each must be inspired by the task to which each contributes, and the band must act as one in its execution.

In such preaching there are two notable features. First the contact between preacher and congregation is of a self with other selves, all alike under the domination of a common ideal. Such contact cannot be expressed in terms of sight or hearing or any aggregate of sense-impressions.[2] The preacher is aware of their attention, of the awakening, rise and flagging of interest, not simply by a multitude of small indications: these are not only too subtle for conscious analysis, but even if analysed would not account for the fact. As well try to reduce my sympathy with my friend to the sound of his voice, the look of his face, the pressure of his hand: it is the man, his personality as a whole, which makes its impact upon mine when we, he and I, meet and are at one.

Secondly, in such preaching the speaker is free from all self-consciousness or knowledge of the separate

[1] Cf. Emmet in *The Spirit*, pp. 161–2.

[2] McDougall, *The Group Mind*, pp. 29, 30, reduces sympathy to mere sense-impressions, to the silence or coughing of the audience in its effect upon them and the speaker. I do not think that any experienced speaker would agree with him or with this chapter of his book. For detailed treatment of the problem see below, pp. 185–203.

processes which make up his activity. He is, for example, entirely unaware of his body, as body. His movements are spontaneous and immediate: often he does not know afterwards by what gestures he has emphasised his words: he is not an actor playing a carefully rehearsed part, but an agent living out his theme. So too of his sentences. However carefully he has pondered them, his speech is not an act of memory, but the attempt to express, with words as one chief means, a conviction which is a fact of his life. He will find that what he says is rarely, either in form or content, a reproduction of his prepared theme; when his work is done he may be unable to recall anything more than a vague outline of what he said: words, like gestures, have been spontaneous—not a discourse about God, but a means of bringing God to His people. And he can test very simply and certainly the degree to which he has achieved this self-unification. When his self-consciousness has been active, when he has spoken with detachment, his hearers will receive his words and nothing more; they will criticise phrases and ideas, and probably miss the reality behind. When he and they have been in real sympathy, when the selves concerned have been unified by their single purpose, then, though the speech may have been halting, technically poor and liable to hostile comment, the intention of it will not have been lost; the experience too big for words will have been shared; the conviction will have been communicated, however inadequate the symbols by which he strove to express it.

Such an illustration (which could be paralleled from any true vital effort) goes to show that personality transcends a mere aggregate of the factors discoverable by analysis. It may be true that there is nothing more in me than the various elements, physical, psychic and spiritual, which it is the business of scientific study to isolate and describe. But the self, the

integrated unity thus constituted, is not a resultant, but an emergent. In the combination there is manifested an entity which cannot be equated with the sum of its parts. And a true interpretation of human life will give full value to this conclusion.

If we are to concern ourselves with personality rather than with the elements of its composition, we cannot limit our study to the individual. For as individuals each one of us is an element in a whole larger than the self. Our illustration of the preacher has already suggested that we cannot reach full personal activity except in fellowship, and our study of individual character supplies a close analogy to this discovery of the integrated corporate organism, in which we lose our lower and find our highest selves. Each one of us, however limited in scope, finds himself inevitably a partner in many groups, large or small; and the attempt to limit religion or any other vital interest to its individual aspect alone constantly finds itself face to face with the problems which thus arise. John Smith is, no doubt, an individual; but he is also John, a baptised and communicant member of the Church of England; and Mr. Smith, husband of Mrs. Smith and father of the little Smiths; a householder, of No. 5 John Street, ratepayer for his premises; a citizen, a member of a political party, an elector; and Smith of Smith & Co., Ironmongers, with a threefold relationship with his shareholders, assistants and customers; and, above all, a member of the human race and a "child of God." "One man in his time plays many parts"—sometimes so many and various that he finds it hard in each of them to remain the same person, to pursue the same ideals and maintain a consistent standard, to realise his own personality when acting in a corporate and representative capacity.

The enormously complicated problems of conduct which arise from this diversity of grouping and the resultant conflict of loyalties are not here our concern.

We have only to consider the relationship of individual experience to this social life, and the transformation which that relationship accomplishes. Its origin may help us to understand its character; and for this a simple example is suggestive. As soon as the individual attains self-consciousness he assigns a similar self-hood to the objects with which he comes into contact, at first, like the savage, personifying furniture and trees, teddy-bears and hobby-horses, but soon learning to restrict such attribution to living organisms which behave like himself. From this "intersubjective intercourse" he discovers "trans-subjective objects." He and his brother are agreed that nurse exists, and that her moods and tenses are a matter of common interest about which they construct, by interchange of ideas, an increasingly accurate concept. Adjusting themselves to this concept, they begin to act together as partners to conciliate or outwit. As such, and serving their shared purpose, they incur responsibilities to one another and obligations "for the firm." Neither of them can act for himself alone: he has transcended his mere individuality, though often the clash of desire between self-protection and loyalty may give rise to acute internal conflict. And as he grows each develops a variety of such group-memberships, and in them finds both wider experience and increasing complexity of conduct. So long as the common purpose is one of which he can whole-heartedly approve, and in which he shares along with those whom he understands and trusts, all is well; in furthering it he is fulfilling his own true end; but if he finds himself committed to partnerships to whose end he is indifferent or whose members he dislikes, there is friction. In his first term at school he faces, often in an acute form, the most difficult issues of life, the adjustment of the individuality to the corporate sphere in which, for good or evil, personality will be developed. It is the aim of education, of politics and of religion, to

constitute a group in whose service the individual can find his fulfilment, a group whose appeal shall meet with universal acceptance as representing the highest aspirations of humanity.

In what sense the group can properly be described as a corporate personality is a question much debated. John Smith in entering business finds himself allied with many other individuals with whom he combines for the purpose of supplying the public with hardware. His firm has thus a definite purpose and activity, a common policy, common obligations and, in the eye of the law, an entity as a corporation. The activities of the firm are not coincident with those of its members, but only with such portions of them as contribute to the common purpose. With Smith as husband, voter, churchman, the firm has no direct concern : he and his fellows constitute a group by community of business interests, and only so far as these are involved do they belong to it. The business-lives of each are the stuff out of which, when combined, emerges the corporate entity : coming together and serving a trans-subjective purpose, they create something which is not the sum of themselves as units, but of their interactions one upon another and of their interest in the aim to which all aspire. How far such a group can properly be regarded as a corporate personality; how far we can, strictly speaking, assign to it a group mind; whether it is an organism or only an organisation—these are questions alike difficult and, for a religious philosophy, supremely important.

That the analogy between the individual and the community has been, and is, commonly accepted is plain enough. When Plato treated the republic as simply the citizen writ large, and when St. Paul spoke of the Church as a body having many members, they were giving sanction to a convention which is, in fact, of universal acceptance. If the critical analysis of any object tends to reduce it to terms of mechanism,

creative synthesis, the effort to realise the object as a whole, tends equally to its personification. My school, my university, my nation, my church, these are for me organisms which have the attributes of living beings, and which, consciously or not, I represent least inadequately under the symbol of a person. The same impulse which leads the child to hold converse with its doll, and the savage to fill the desert with devils, and the Greek to populate woodland and stream with dryads and nymphs, and the Latin to place every activity under the charge of a tutelary god, finds in us similar, if more sophisticated, expression.[1] The England for which a man will die is not king and constitution, Sussex down or Northern moorland, nursery of his children or protector of his livelihood; he could not describe it in terms of geography or of politics, of science or of history, of culture or of tradition, though each one of these might contribute its symbol to the reality apprehended behind them. Dimly perhaps, but very certainly, he feels that here is not an organisation to be maintained or an ideal to be preserved, but a person to be loved. Every man is in this sense a poet, and his poems live.

Is that all? Is this universal impulse testimony only to the "pathetic fallacy," to the habit of dramatisation which we criticised in the "literary psychologists"? Or is it the case that, leaving aside the inanimate world, societies of human beings possess an independent life for which personality is no mere allegory or fiction? We need not concern ourselves with primitive animism or with those refined speculations which may follow from a belief that the universe as we know it is the expression of a Personality: to discuss the "soul of the forest" or the "spirit of the mountain" would be to wander into regions remote from our immediate purpose. Human groups fall

[1] Cf. Clutton-Brock in *The Spirit*, pp. 281–93.

into a different category, and if we are to arrive at a view of personality adequate to the facts, the nature of such groups must be considered. For our experience of the exercise of sympathy and of the reality and worth of fellowship introduces us to a sphere in which we discover phenomena not easily explained in terms of individuality.

It is a commonplace to any who have been under fire that the courage of two men together is vastly greater than the sum of what each separately can muster, and that the *esprit de corps* of a battalion on the eve of action is so strong that the weakest is upheld and the most aggressive dominated by it. Yet it is painfully obvious that when the stimulus of a common interest is removed, men in company can do acts to which none would privately consent, and that the wisdom of a committee is apt to vary in inverse ratio to the number of wise men who compose it. And the explanation of such a contrast is manifest. In the committee as this is ordinarily constituted the members are selected as representing particular and often antagonistic interests, and as such attend with the express desire either to impose their own views upon the others or at least to secure that no one else gets full satisfaction. There are dignities to be respected, precedents to be remembered, consistencies to be maintained, sectional interests to be placated; the members are asking not What is right? but How much will Jones swallow? Moreover, they meet not as friends, not with any desire to share and understand one another as in a true sense persons, but as representatives of a point of view, of one interest abstracted from the self of each, machines for the doing of business, critical and detached rather than creative and absorbed, unable to bring to their task the whole integrated personality. In such cases—and they cover most of the corporate entities with which the law is concerned —the reality is best represented, as a distinguished

lawyer has put it, " by the estatification of interests, and not by the pretended incorporation of people." [1]

We have, no doubt, taken an extreme instance of the darker side of collective activity, though had we substituted an industrial undertaking for a committee, at least as unfavourable a picture would have been drawn. For it is the chief source of the present unrest, the chief motive behind the cry for a " new spirit in industry," that under existing conditions the partners in business, whether workers or employers, are becoming more and more depersonalised in their relations to their work and to one another. When mechanical efficiency rather than personal worth determines employment, when the cash-nexus is the link between human beings, then Carlyle may remind us that " Never on this earth was the relation of man to man long carried on by cash-payment alone. If at any time a philosophy of Competition and Supply-and-Demand start up as the exponent of human relations, expect that it will soon end." [2] The problem for to-day is how to end it without disaster.

The committee, as too often composed, fails just because its members are united not as persons but in some one element of their interest: they lack that vital fellowship or sympathy which is a condition of any true " group " achievement. For the same reason the typical crowd cannot be taken as exhausting the possibilities of corporate personality. The point is of importance: for the popularity of Le Bon's views,[3] the notable instances of extravagance and hysteria, of passion, cruelty and credulity in mob action, and

[1] Judge Dowdall in the *Monist*, January 1926, p. 135. Prof. Hocking's recent and valuable book, *Man and the State*, deals fully with this type of " group mind," but does not enter upon the more intimate aspects of personal relationship with which I am here chiefly concerned.

[2] *Past and Present*, p. 188.

[3] *The Crowd*—a popular but biased piece of work. For detailed reference see Note at end of chapter.

the legitimate dread of revivalism, have prejudiced many students of religion and of sociology and made them regard all fellowship with suspicion.[1] Writers who take a balanced and judicious view of suggestibility in dealing with the individual are apt to use the word to dismiss with it all further consideration of social activity. It is, of course, obvious that people in the mass can be influenced by suggestion, and that methods equivalent to collective hypnotism have been deliberately fostered by certain " professional " revivalists.[2] It seems probable that the influence of close proximity tends on the whole to foster loss of self-consciousness or even of self-control, though this probability has been exaggerated by certain psychologists. But if, as we have argued, self-consciousness inhibits full vitality, or if, as Christians would admit, it is not a condition under which men are necessarily at their best, such a loss would not involve the consequence that the tone of a crowd is always lower in quality than that of its members. And the supposition would be hard to substantiate by evidence. Rather the crowd fails to reach the higher levels of corporate experience when co-operation is based upon an unworthy, superficial or incomplete ideal. Where its unity is transient or solely emotional, when it proceeds from casual excitement, then the herd impulse will aggravate the power of the elements under stimulation, and the whole will be swept into conduct of which in calmer moments the members may well be ashamed. But to identify such manifestations with the whole content of the word fellowship, and to condemn corporate life on these grounds, is to be blind to the

[1] Cf., for example, Selbie, *The Psychology of Religion*, pp. 153–65; Dimond, *The Psychology of the Methodist Revival*, pp. 125–39; Underwood, *Conversion : Christian and Non-Christian*, pp. 197–204.

[2] Cf. Underwood, *l.c.*, pp. 205–15, for evidence of this in the case, *e.g.*, of Torrey and Alexander; and Thouless, *Introduction to the Psychology of Religion*, pp. 152–3, of Billy Sunday.

potentialities of the noblest human experience. When men are at one, not in certain sectional interests, but in their full æsthetic, intellectual and moral selves, they are capable of rising as far above their individual capacities as under committee or crowd conditions they fall below them.

The plain fact is that students of group-psychology have been too quick to follow their fellows who have studied the individual, and to aim at reducing their subject to terms of primitive instinct. If we cannot worthily represent a single individual as analysable into a few simple impulses, we cannot dispose of corporate life by labelling it as a " herd " and taking Galton's ox [1] as the type of fellowship. To do so is to omit friendliness, or, as I prefer to call it, sympathy,[2] the intimate and infinitely enriching communion with others wherein there is real contact of self with self. Man may be a " social animal " ; sympathy may have its origin in a social complex or a herd instinct : but to judge the group-mind by its crudest manifestations is too often to neglect the finest product of human nature, than which, as Emerson [3] and a myriad others have remarked, " nothing is so much divine." Few examples illustrate the weakness of the New Psychology more notably than its neglect of friendship in treating of collective activity. For our purpose an examination of the power and the nature of such sympathy is of fundamental importance.

In contrast with the failures of corporate effort where there is no absorbing unity of purpose or when the energies of the group are concentrated upon an end that appeals only to one side of their natures,

[1] *Inquiries into Human Faculty*, p. 72—a striking illustration which is quoted in almost all the treatises on group psychology, usually with a conviction of its validity.

[2] Hall, *Life and Confessions*, p. 460, after setting out a long series of names for this " power to feel with " others, selects sympathy as the most appropriate.

[3] *Essays*, p. 109 (York Library Edition, Vol. I.).

consider the case of such real fellowship as we have found in the orchestra or the congregation. In these instances it may still be urged that the unity is produced by the personal dominance of conductor or preacher, that he creates an atmosphere of strong suggestibility and impresses his own ideas upon the others. He would himself, I believe, repudiate this explanation, and claim that each member had a share in the combined result, that a real " common soul " had been manifested in them all, that together they had experienced the emergence of a new and super-personal entity. This claim may be substantiated by an illustration. Suppose a football team of individually inferior players set to meet a club stronger than themselves. They are not only keen to win, but have that elusive and yet recognisable quality, the team-spirit, arising out of strong sympathies, close contact and loyalty to their club. Separately and together they prepare for the ordeal. It comes; and the team " play as one man." The phrase means literally what it says. It is not the case that any particular member is above his usual form or dominates the game; but that at every point men are found to take passes, to stop rushes, to meet attacks, to develop openings. To the onlooker it is as if the spirit of the club, like some ancient god of battles, had taken control, moving and co-ordinating the players like the limbs of a single body. Instinctively, so it seems, each man plays to the rest; everything " comes off "; as a team they are in a different class from their opponents, an army against a mob.

So trivial an example may serve to show that what Maeterlinck has called the " spirit of the hive " [1] is an influence not confined to bees. In the bird world anyone who has watched the evolutions of a flock of Knots at high-water or of Starlings at their roosts [2] will

[1] *The Life of the Bee*, p. 32.

[2] Cf. Bingham Newland, *What is Instinct?* pp. 98–109.

have wondered how the exact and simultaneous change of direction could be controlled. It is not that one bird, as with a gaggle of geese, gives the lead: all swing together, their wings flashing in unison: a single impulse animates them all. Through the whole of life among species regularly or occasionally gregarious corporate action of this kind seems to occur; and though we may not be able to explain its psychology, the "herd mind" would appear to be much more than a *façon de parler*.[1]

Among men the conditions of such an experience are concentration under stress of an adequate motive and sympathy in its fulfilment. Self-consciousness or any other wastage of energy frustrates fellowship; every member must be alike absorbed by his purpose and sensitive to those who share it; mutual confidence and recognised comradeship banish friction and weld the group, as the faculties of an individual are welded, into a unity. Out of such a society there emerges the common will, the group-mind, the larger self, constraining, directing, inspiring the whole, impressing itself upon the members with all the power of a personality. Under its spell they think and speak and act as organs of a body; and power, out of all proportion to the sum of their separate capabilities, pulses through them all.

Such experiences of the reality of social personality demand more attention from the psychologist than they have ordinarily received.[2] In its absence they are apt to be described by those who have not shared them as mere imagination and figurative talk, and by those who have as mysterious, abnormal and, if religious, supernatural. Yet they are both real,

[1] The thesis of Espinas, *Les Sociétés animales*, quoted by McDougall, *The Group Mind*, pp. 33–5, is worthy of a much fuller treatment than it receives from him.

[2] Le Bon, *The Crowd: a Study of the Popular Mind*, Trotter, *Instincts of the Herd in Peace and War*, and McDougall, *The Group Mind*, are the chief books. For my criticism of them see Note at end of chapter.

and in lesser degrees usual and even commonplace. They are on the human plane the counterpart of that which we have seen at all levels of existence, and to which, when thus operative in ourselves, we give the name sympathy. Three molecules of silicon dioxide come together, and from their union emerges a new entity, the quartz crystal. Two specimens of (say) the Infusorian *Paramecium caudatum* meet, drawn together by an attraction which is almost purely a matter of physics, though it has its primitive psychic element: they conjugate, and there is set in motion the process of rudimentary sexual reproduction.[1] The young hen Whitethroat finds a mate and a territory, and the partnership gives occasion to the co-operative activity of nest-building and the rearing of a brood. What starts as simple relatedness develops richer content and effects until in man it appears charged with the character of his special qualities. If, in him, it is to be productive of corporate personality, those who so combine must individually be integrated; they must function as selves, spontaneously and without self-consciousness. While there is reserve or jealousy, the new integration will be thwarted. Sympathy—not the mere give and take of casual acquaintance, but the pursuit in comradeship of a common interest—is the "coming together" out of which emerges an entity, which, though constituted by the selves of those who so unite, is nevertheless new. In the experience of this sympathy the individual achieves, in the full sense, personality.

The consideration of sympathy both in its psychic and its physical aspect leads us to problems on which there is wide divergence of opinion. The evidence is tolerably clear, its explanation much less so, especially in the matter of telepathy, where many would reject the facts as unproven, largely because they do not see their way to account for them. Such questions are of

[1] Cf. Jennings, *Behaviour of the Lower Organisms*, pp. 102–4.

fundamental importance for our purpose, and although I am very conscious of my own incompetence to deal with them, they cannot be slurred over. What, then, are the data?

Few of us will dispute the elementary truism that an acute sensibility to the feelings of others accompanies any relationship which has the quality of intimacy. It is not only that we "feel at home" with our friends, but that we perceive their desires and enter into their unspoken thoughts. A Sherlock Holmes may astonish his Dr. Watson by a logical exposition of his observation of the slight movements that have accompanied and betrayed the chain of thought. But though psychic process has always its physical concomitants, it will be gravely doubted whether these are always perceptible or external. An instance will illustrate. In my early days, when I was sceptical of all such phenomena, I worked for nearly a year in an office with a single colleague. He was a Scot, and though a delightful and in many ways a great man, he was my senior rather than my friend, and there were many minor irritations in our relationship—almost entirely on my side. One night I went off in pursuit of moths to a wood, and in its silence calmed my jangled nerves and saw the man in perspective and with sympathy. On returning next day, my changed attitude to him and the heightening of my sensitiveness by a time of quiet and collectedness gave me a wholly new consciousness of his inner self. Our talk was solely of business; but immediately I was aware that he had something else worrying him, and, more gradually, that this would take him early away from work and involve him in an emotional strain. Then there formed in my mind a clear concept of a parting. He was very reserved and had complete self-control, and I am certain that, apart from a slight restlessness, he betrayed no outward sign of his thoughts. Nevertheless when at four o'clock he told me that he must leave, I

felt that I had known it for hours. Some days later it transpired that he had gone down to have tea on a liner with an intimate friend who was sailing that night and whom he would probably never see again. Similar cases might be cited interminably. Doubtless every one of us could quote parallels. This one attracted my attention: I could not accuse myself of credulity or set the occurrence down to imagination; for at the time my disbelief in so-called psychic communication or thought-reading was complete. I had become *en rapport* with a man previously somewhat antipathetic; and the result astonished me.

This does not mean, for me at least, an acceptance of the animistic hypothesis or a belief that the "soul" functions apart from the body. What is to the psychologist a matter of sympathy and the comprehension of unspoken sentiments, is accompanied by chemical changes and the expenditure and reception of physical energy. That this energy does not express itself through speech or visible movement, does not disprove its existence or its activity. Every emotional or intellectual or volitional impulse has its counterpart in disturbance of the brain centres, pulsation of the nervous tissue, and the consequent emission of vibratory motions which may well make an appreciable impact on the receptive mechanism of another. That we do, in fact, both receive and transmit such waves of sympathy would be asserted by almost every speaker who knows the "feel" of an audience and every teacher who is capable of holding the attention of a class.[1] He "senses" their attitude not by what he hears or sees, but by the impact of their personalities upon his own; and to the sensitive the impression is immediate and indisputable. It is for the expert physiologist to investigate and expound this aspect of the contact of self with self, and to explore the

[1] Cf. Drever, *Instinct of Man*, p. 240.

physical basis of communal personality, the creation of a field of corporate sensitivity.

Behind these cases of mutual cognition where there is visual or auditory contact looms the question of telepathy, of similar communication where distance separates those who share it. This is not the place to set out or examine evidence which is large in bulk and variable in validity, especially as personally I can add nothing to it which is not free from the possibility of being remembered coincidence. The ordinary cases—the way, for example, in which a friend of whom one has not thought consciously for months suddenly comes into one's mind just as the time at which he was writing a letter that arrives next morning—may be explicable on the ground that memory fastens upon such occasions, but dismisses those on which we think without sequel. Yet there are many striking instances that are both too definite in content and too well attested to be lightly dismissed. If we are right in contending that the self when concentrated in a passion of desire to communicate expends not only psychic but physical energy, then there is no reason why the energy thus emitted should be dependent for its reception upon the presence of the transmitter to the other senses of the recipient. No doubt the power of response to the vibrations will be affected to some degree by distance, just as is our power of vision; no doubt it will always be weaker when unassisted by the evidence from other channels; but unless we can resolve all communication into terms of touch or smell, of hearing or sight (and this is incompatible with any " thought-transference "), there is no reason why it should be in itself contingent upon the physical proximity of the communicators. Those who have made a practice of telepathic sympathy testify with unanimity that the necessary concentration, while accompanied by a complete relaxation of muscular activity, yet produces an almost overwhelming physical fatigue, such fatigue as results from

a great wastage of tissue and must produce a corresponding outlay of vibratory disturbance. Prayer, which is a particular exercise of sympathy,[1] involves not only psychic energy, but bodily strain : to wrestle in prayer is an agony which leaves the wrestler limp and exhausted.

That such sympathy is only perceived by those who are " in tune " with it, is natural enough. Those who have been intimately associated have adjusted themselves to receive communications; their nerve-centres are " tuned up " to mutual responsiveness, quick to catch and bring to consciousness the familiar message.[2] All our senses speedily become specialised by practice : the trained eye detects at once the moth on the tree-trunk; the expert's ear can catch the squeak of the bat or pick out a particular bird's note from the chorus on a summer morning. Those who have been united by friendship and common interests inevitably become sensitive to the least change of mood in one another, detecting subtleties of tone and bearing imperceptible to the world at large, and adjusting themselves unconsciously to the difference. If we accept as demonstrated the reality of extra-sensual but not therefore non-physical communication, we shall interpret what we have called the impact of self upon self, the intuitive response at a first meeting to those who are sympathetic with ourselves, on the same basis as thought-transference and telepathy. And that it is a fact, however the physiologists determine its physical basis, is to most of us incontestable. The attempt thus made to

[1] For the relation of prayer to telepathy cf. Streeter, *Reality*, pp. 293–9.

[2] Cf. Reith's interesting speculation in the final paragraph of his *Broadcast over Britain*, p. 224 : " A means may be found to ally thought with ether direct and to broadcast and communicate thought without the intervention of the senses or any mechanical device, in the same manner as a receiving set is to-day tuned to the wave-length of a transmitter so that there may be a free passage between them."

suggest a physiological treatment of sympathy is one upon which there would seem to be need of much further enquiry among students of religion. The actual fact of communication through channels other than those of the specialised sense-receptors is taken for granted by the vast majority of us. But so long as it is discussed in vague talk about "atmospheres" and "influences," or interpreted in terms of "auras" and "emanations," it will be regarded by any scientifically trained mind as speculative and fanciful; and the Christian will suspect it as savouring of theosophy or "spookery." It is a field in which only those who have taken part in serious experimental work, undertaken not in order to vindicate a prejudged result, but with impartiality and sound knowledge of nervous structure and processes, can speak with authority. But a layman may be pardoned if he sets out his general attitude for criticism.

It is evident that life at its lowest level possesses in however small a degree, sensibility and the means of responding to external stimuli. In organisms like the *Paramecium* we can hardly suppose that, for example, the conjugation of two individuals is not accompanied by a measure of sympathetic "awareness" of one another, of sensations given and received. This generalised activity, at first presumably diffused throughout the structure of the organism, develops along with the growth of a special nervous system; and if the theory of unrestricted concomitance be true, we have here the physical aspect of psychic relationship. At an early stage in evolution this undifferentiated power of communication can be located in the vibrations arising in the nerve ganglia. Reaction in such cases is slow and relatively inadequate, until the appearance and improvement of specialised sense-organs. Touch, smell, taste, sight and hearing are the canals through which transmission and reception of stimuli can take place with immediacy and precision. But the

appearance of particular modes of communication is imposed upon, and does not wholly supersede, the more generalised activity.[1] It is natural and probable that with the increasing reliance upon eyes and ears the sensitiveness to non-specialised vibrations would become less acute. But we have seen in insects and birds a possibility of co-ordinated action the signal for which can hardly proceed through any of the recognised senses; and there is reason to believe that the harmony thus achieved is more complete than is ever produced by the possession of an idea or other form of intellectual motive.[2] I have raised the question elsewhere [3] whether the alertness of wild creatures can be explained as due to acute sense-perception or does not in certain instances involve a phenomenon similar to that of thought-transference. In humanity it is very evident that reliance on vision has led to a relative disuse of smell and touch; and that the blind develop very rapidly an almost uncanny acuteness in other directions and (I believe) in this general sensibility.[4] The tendency of civilisation is towards more definite specialisation and the loss of simpler contacts, as is shown, for example, by the contention of Rivers [5] that

[1] Thus among insects, although there are specialised organs for sight, Graber's experiments prove photodermatic perception of light and of ultra-violet rays : cf. Forel, *The Senses of Insects*, pp. 43–71. And Von Buttel-Reepen seems to establish that bees "hear" although they have no appropriate organs (Forel, *l.c.*, pp. 247–55).

[2] Rivers, *Instinct and the Unconscious*, p. 94.

[3] Cf. *In Praise of Birds*, p. 133.

[4] *E.g.* in the matter of the "feel" of an audience, blindness and deafness seem in no way to lessen sensibility and are often accompanied by an increase of it. Richet, *Proc. Eleventh Intern. Physiol. Congress*, 1923, maintains the existence of channels of knowledge outside the senses, and gives to this "hidden sensibility" the name "cryptaesthesia." Cf. Simpson, *Spiritual Interpretation of Nature*, pp. 203–5.

[5] *L.c.*, pp. 95–6; cf. Cornford, *From Religion to Philosophy*, pp. 77–82, for a strong statement of this group-consciousness

the Melanesians exhibit so fine a delicacy of social adjustment as to perform co-operative tasks by intuitive sympathy, unexpressed by word or gesture. Possibly the distinction drawn so violently by M. Bergson, and, whatever its validity, so obvious in Nature, between instinct and intelligence may be correlated with the extent to which general and specialised sense-vibrations are effectively transmitted and received. Certainly when we speak of "instinctive" likes and dislikes we refer to something which is sensed as an impression made by the personality of another upon our own, rather than deduced from the appearance and speech and hand-clasp. And when we classify our experience of thought-transference as "intuitional," we assign it rather to the category of "instinct" than of intelligence. The effect of such impressions is at once more vague and more compelling than that of those derived from the evidence of the senses.[1] When we meet a stranger, his impact will assure us, so strongly as to compel our assent, of his quality in relation to ourselves. We feel distrust or indifference or recognition of a kindred spirit; and the sensation is evidently not derived from what we see or hear, and is often at variance with it. It is the real self of the man, not the mask which he assumes for our benefit, that meets us; and as we cultivate our sensitiveness, so we learn to rely far more implicitly on our intuition than on any other method of appreciating him.

Of the physiology of this sympathy it is not for me to speak, except to note that both Prof. Lloyd Morgan [2]

in primitive people; and McDougall, *The Group Mind*, pp. 66–76. Both these deal rather with crowd emotion than with sympathy or thought-transference.

[1] Rivers, *l.c.*, p. 48, notes as characteristic of this type of instinct, (1) the absence of exact discrimination, (2) reaction with full available energy, (3) uncontrolled character of response.

[2] *Instinct and Experience*, pp. 75–80 *et passim*. My friend, Dr. Needham, has very kindly contributed an appendix on this subject. See below, pp. 287–303.

and Dr. Rivers[1] agree in assigning it to the sub-cortical levels of the brain. What Rivers and Head[2] call the protopathic type of instinctive action, where the response to stimulus is undiscriminating, is located by them in the optic thalamus, a structure which has come down to us from an early stage in the development of the nervous system, and is now buried in the interior of the brain by the vast increase of the cortex.

That communication by this means does not consume a large amount of energy, and that, as such, its activity is usually carried on unwittingly, is not surprising, in view of the extremely small expenditure of calories occasioned even by intellectual processes. And my friend Sir Frederick Hopkins assures me that "the amount of radiant energy actually required for the process we are thinking of would be infinitesimal. The amount, for example, that reaches and efficiently works a wireless set is extraordinarily small." But if this normal emission of vibrations hardly involves any fatigue, and yet is capable of producing in the recipient a distinct response to its stimulus, it is not surprising that intense and concentrated activity should be effective upon those in tune with it even at a distance. We have here, I believe, the line of approach for a study of the physiology of telepathy and of the group-mind.

Yet though such study of the physical correlation of the activities of the self is of high value for a scientific understanding of life, it must not necessarily be assumed that the whole of our experience can be interpreted on that level. The theory of unrestricted concomitance which we are advocating represents the story of evolution as a series of steps from the inanimate whose categories are purely physical to the spiritual, where, from the fully developed self with its bodily and psychic aspects, emerges a new and non-material level of being.

[1] *L.c.*, pp. 48–9, basing his conclusion on the work of Sir Henry Head.

[2] Cf. *Studies in Neurology*, pp. 597–601.

For it is the peculiarity of man, or at least of certain men who would be generally recognised as the higher representatives of the race, that in them there is cognisance of a plane beyond the physical and mental. We have already argued that the universe can be best interpreted as the manifestation of the divine Spirit, that on the diverse levels of the natural order His activity is revealed in the mode appropriate to each. With man there emerges the capacity to apprehend the spiritual, to experience a communion with God not fully explicable in terms of physiology and psychology,[1] an activity of the whole self which in its wholeness transcends our powers of analysis.[2] We shall have to discuss this matter in the next chapter, and shall try to maintain that though a naturalistic study of the physical and mental processes is necessary and proper, and though such processes form, so to speak, the foundation of our spiritual activity, they are, in fact, transcended; that although in our relationships within the frame of space and time we must look to scientific investigation to explain the method of our functioning, yet at our most characteristic moments "spirit with spirit can meet" in a fashion beyond the purview of science; and that, far from contradicting the convictions of "natural philosophy," it is this apprehension of the eternal which explains and completes its interpretation of the universe. In the development of mankind it is this discovery of a new and unrestricted environment, this emergence of deity, which is the goal alike of the individual and of society. For that end the growth of corporate consciousness is at once a preparation and a contributory element.

[1] Cf. Relton in *Psychology and the Church*, p. 91.

[2] The contention of Dr. W. Brown, that spiritual activity is characteristic of the "pure ego" and therefore beyond the sphere of psychological analysis, which is appropriate only to the "empirical ego," is important and suggestive. Cf. his paper at the Church Congress 1926, and my comment upon it in *The Eternal Spirit*, pp. 142–7.

For it is in the development of sympathy, by sharing in trans-subjective thoughts and feelings and activities, that individuality becomes in the full sense personality. The two terms are now commonly and usefully distinguished. " Individuality is a mere difference from others. Personality is a process of development, in which we have parallel processes of individuation and assimilation." [1] The madman who has no point of contact with his kind is an individual : growth consists in the discovery of satisfying relationships, and will continue as we develop interest in real values and intimacy with those who pursue them. A society devoted to the realisation of beauty, truth and goodness and whose members are united in mutual trust and affection will be the training-school of full-grown persons. " The self-satisfaction of the finite is the portal where hope vanishes—the sin against the Holy Spirit. There is no true optimism which has not absorbed renunciation into itself and learned to look for strength and security to its union in will and conviction with the whole in which it is rooted." [2] It is not that the selfhood of the individual members is lost, rather it is enlarged and enriched, as the barriers which separate them from their fellows are thrown down and the common life opens before them. To be " absorbed in the infinite " often suggests a devitalised and impersonal existence; its reality is the very opposite. Those who " being many are yet one body " attain by their communion each to his own freedom and stature; and the only unity which can satisfy their full possibilities is with the eternal.

[1] W. Brown, *Science, Religion and Reality*, p. 326; cf. Lloyd Morgan, *Life, Mind and Spirit*, pp. 308–10.

[2] Bosanquet, *The Value and Destiny of the Individual*, p. 324.

The Group-mind in Recent Psychology

The theory set out in this chapter, that the group-mind is based upon the intuitive sympathy dependent upon unspecialised sensibility, or the impact of one personality upon another at a lower level than that of the particular senses, has points of contact with Le Bon's study of crowds.[1] He describes the crowd as characterised by the possession " of a sort of collective mind," by the emergence in its members of the " racial unconscious " as their individual acquirements are obliterated, by contagion of a hypnotic order, and by extreme suggestibility.[2] As such he regards the group-mind as merely a reversion to a primitive and savage state, the higher moral and intellectual qualities being overwhelmed by an uprush of instincts normally repressed. In agreeing with him that the collective mind is a manifestation of the activity of sub-cortical centres, it might appear that, like him, I should regard the group as necessarily lower in moral and intellectual capacity than the individuals composing it. This would follow if I believed that the unspecialised vibrations, because proceeding from a lower portion of the brain, therefore reproduced animal or savage impulses. This would contradict my contention that the self is one and indivisible, that nervous and psychic activity expresses not various and dissociated strata of consciousness, but the integrated personality functioning as a whole through its several channels. It would also, I believe, be false to the facts; for the group can rise above the sum of its members as well as fall below it. To the unorganised

[1] As also with Trotter, *Instincts of the Herd*, particularly pp. 13–23. Like other psychologists, Trotter lays stress on the instinctive character of gregariousness, and connects its appearance in man with its manifestation at lower levels of life.

[2] *The Crowd: A Study of the Popular Mind*, pp. 29–35.

mob where there is neither a common ideal nor an intimate sympathy, where men are just "herded together" under conditions of crude emotional excitement, Le Bon's description applies not unjustly. The difference between their collective mind and what I should call the group-mind is that between the spectators at a football match and the team actually playing. As Freud [1] points out, the bond of unity in the group, the common ideal, is precisely what separates one type of corporate activity from another. Between the unorganised and the organised group McDougall [2] rightly draws a clear contrast. As his book, *The Group Mind*, is a "standard work" [3] on a rather obscure subject, and as the view put forward in this chapter differs in an important degree from his, it may be well to treat the divergence in greater detail. I have suggested that a "common ideal," such as to call out loyalty, and an intimate sympathy in its fulfilment are the essential conditions of a true corporate consciousness. He emphasises the former, and recognises in it five distinct elements which, when combined, create the strongest type of collective life. These five are: continuity of existence; an adequate idea of the nature and functions of the group; interaction with similar groups; the existence of traditions and customs; organisation and specialisation of function among its members.[4] The latter, the sympathy which he calls "collective consciousness," he dismisses on the ground that up to the present time no evidence of phenomena that cannot be explained except on this hypothesis has ever been produced.[5] The transference of emotion through a group he assigns solely to sense-perception. Corporate consciousness he ascribes not to sympathy, but to volition.

[1] *Group Psychology*, p. 7.
[2] *The Group Mind*, pp. 45–9.
[3] So *Psychology and the Church*, p. 265.
[4] *The Group Mind*, pp. 49–50.
[5] *L.c.*, p. 39.

It is very notable that he fails to explain, or even to discuss, the collective activities of the animal world. In a short paragraph,[1] referring to the societies of bees or ants, he suggests that " some idea of the community and its needs is present to the minds of its members." This is surely a piece of anthropomorphism, another instance of his constant tendency to read back human mentality into the behaviour of organisms on a lower level of evolution. The bee does not accept division of labour from an understanding of the duties of communal life and of its own responsibility; and yet it discharges elaborate co-operative tasks with an almost perfect precision and correlation to the work of its fellows. Lord Avebury, eagerly searching for signs of intelligence, failed [2] to account for these activities in terms of human faculties; and since his time few have even attempted to do so.[3] It is probably true to say that the corporate life of the community is more like that of a colony of coral polyps than of a human city; that there is a " spirit of the hive " animating each of its inhabitants; that they act together not from any conceptual purpose, but from an intuitive sympathy.

For the origin of such co-operation we have to look back to the individual cell's capacity for co-ordinated relationship, manifested in the emergence of multicellular organisms; or perhaps even further still, to the quality of combination inherent at all levels even to the atom. It exists along with differentiation from the first; and in evolution we can trace the two tendencies at work side by side. Thus to treat group-consciousness on the human plane alone, and to charac-

[1] *L.c.*, p. 66.

[2] *E.g.* in matters of communication, recognition, cf. *Ants, Bees and Wasps*, pp. 152, 171, etc. Leydig's original suggestion of a sixth sense still fills a gap in our knowledge: cf. Forel, *The Senses of Insects*, p. 3, etc.

[3] The antennae of insects are certainly sense-receptors. Is their action analogous to scent or to hearing? Or do they react to vibrations beyond our compass?

terise it by features appropriate to mankind, but not to its more primitive manifestations, as McDougall has done, is to break away from any scheme of evolution. Le Bon seems nearer the truth when he states : " The psychological group is a provisional being formed of heterogeneous elements which for a moment are combined, exactly as the cells which constitute a living body form by their reunion a new being which displays characteristics very different from those possessed by each of the cells singly." [1]

Moreover, even among men McDougall's five conditions of group-activity seem inadequate. In savage races it is clear from Rivers' evidence that " the general recognition of communal responsibility " as the result of life in a " small closed community " [2] is inadequate. The bond is not solely the conscious acceptance of common habits or a formulated idea of the group, but something far more intimate—a sensitiveness to the vital impulses of other members, a real sharing in a life which is not merely the aggregate of individual lives, but emerges as an entity in their combination. And the experience of such unity is not confined to uncivilised races.

Bearing McDougall's fivefold definition in mind, we can test it by actual experience. The most obvious manifestation of such corporate consciousness that I have known was displayed in the battalion which I joined in 1917; and as McDougall makes much use of army life,[3] the case may be worth examination. The particular occasion on which the " soul of the battalion " emerged most clearly was on the day before an attack which all of us knew would be a forlorn hope—it was on Vimy at the end of April, when our troops

[1] *The Crowd*, p. 29. [2] McDougall, *l.c.*, p. 67.

[3] *E.g.* p. 56. His account of a regiment in action does not fully cover the facts. The most important element is omitted —an element which was conspicuously and almost universally manifested on such occasions in the Great War as he has described.

were being thrown in owing to the breakdown of the French on the *Chemin des Dames*. Officers and men knew what the next day's ordeal would cost: they saw death. Most of them were young, for the Somme battles of the previous autumn had reduced us to a handful. They were nearly all ordinary civilians, lacking the regimental pride and military tradition on which McDougall lays stress. They had not had a long training together or much acquaintance with their unit or commander. In fact none of the five conditions was adequately fulfilled. Yet among them that afternoon there was an absolute response to the "group-mind," an immediate intuition of the needs of the situation, and a splendid eagerness to act together in spontaneous comradeship. Every man played his part in sustaining the vitality of the whole. The aggressive and the unpopular became genial and comradely; the awkward and the "nervy" were set at ease and inspired. The efforts to "play up" were infinitely pathetic: the jests rang a little false, the laughter was over-rapid and strained. To kick a football or indulge in a rough-and-tumble was the natural outlet—a relief from tension and a proof of brotherhood. Occasionally one or other would steal up to me with a quiver of the lip and hand me a letter and mutter, "Post it if I don't get back"; and then run off with evident relief to lay his fears upon the common life, to lean his weakness upon the larger, stronger soul of the fellowship. The immediate give-and-take, the delicate appreciation of the feelings of others, the intuitive sympathy were to me a revelation of the real oneness of men under the control of a great purpose and a common peril. And that oneness cannot be explained in terms of such external bonds as McDougall will alone admit. The "common end intensely willed"[1] only calls out, but does not create the group-mind.

[1] *L.c.*, p. 59.

Very suggestive in this connection is the careful study by Mr. Bartlett of the group-psychology of primitive communities,[1] in which attention is drawn to the incompleteness of McDougall's analysis of the "general innate tendencies," such as sympathetic induction of the emotions, and of the gregarious instinct. Bartlett points out that "there is no good reason for confining this 'readiness to be influenced' to emotions. Similarly, bodily actions, and the materials of cognitive processes, may be sympathetically induced."[2] He also separates the negative aspect of gregariousness, "a mere uneasiness in isolation," from the positive "satisfaction in being one of a herd," insists upon the importance of the latter, and under the name of "primitive companionship" stresses "the response one to another of equals" as the primary element in group-life.[3] The detailed examination of the development of social life in his book reveals the value of this contention, and gives a starting-point for the study of the group-mind far more adequate than those which we have been considering. Whether or no the physiological basis outlined in our last chapter be accepted, it is to my mind essential that friendliness, comradeship, sympathy should be recognised as the basis of social relationships rather than suggestibility or the dominance of a leader; and such friendliness is a matter of sympathetic induction, not simply of conscious response to tradition or to emotional stimulus.

It has been suggested in a previous chapter[4] that the evidence of heredity points to a much deeper truth than is commonly recognised in our membership one of another. Experience of the group-mind reinforces that conviction. Despite our seemingly isolated individuality, we are in a very real sense "one body, one mind, one spirit." And in the realisation of that unity, and the due co-ordination with it of our several

[1] *Psychology and Primitive Culture*, especially ch. ii.
[2] *L.c.* p. 35. [3] Pp. 34–7. [4] Chap. II, fin.

lives, lies the hope of the world. It is love [1] or sympathy, not collective volition, that is the fundamental source of corporate life.

[1] It is to be noted that this does not involve the theory of groups put forward by Freud, *Group Psychology and the Analysis of the Ego*, pp. 80–9. He ascribes it to a "libidinal" relationship, but insists that this love must be called out by "a single person superior to all the members," the leader taking the place in each of the "ideal ego." Though he supplements this by leaving room for "identification" of the members with one another, he regards such social feeling as "based upon the reversal of what was at first a hostile feeling," the jealousy of those who are all in love with the one leader.

CHAPTER VII

THE SPIRIT AND MYSTICISM[1]

THE evolutionary process, as we at present know it, culminates in man; and man reaches his highest level when, in communion with the eternal, he achieves fully integrated and developed personality. So far we have dealt rather with the conditions of his growth than with its goal, assuming what must now be examined.

This experience of the eternal, as thus defined, may be easily misunderstood. The reader will be apt to murmur "mysticism," and to assume thereupon that the matter concerns only a few rare, ecstatic and possibly pathological[2] visionaries with whom he has nothing in common. It is one of the disadvantages of the recent revival of interest in the mystics that, concentrating upon experts like Plotinus or St. Theresa, it has represented them as a class apart, a class gifted with faculties and visited by raptures to which there can be no analogy in ordinary folks. This isolation of mysticism as something supernatural or abnormal does a disservice to religion, and is, I believe, false to the

[1] As explained below, mysticism is a word liable to be misunderstood. It is used here in its wider meaning to denote that experience of the reality beyond phenomena to which others would apply the terms "worship" or "religion,"—both of which are commonly used in too narrow a sense.

[2] It is curious to note that certain psychologists fasten upon pathological cases of mysticism in order to throw discredit upon all religious experience; yet these same authorities urge us to accept the universality of the Freudian "Unconscious" on the strength of pathological evidence.

facts.[1] We all have known moments when the overwhelming beauty of a sunset flooded the whole of our being, when we were vaguely aware of something "beyond," of a presence in it, yet not of it, when we were stirred with a joy not far from tears. Stars and sea, great architecture and great music have the power to produce this mood in most of us—in each according to his temperament. The poets are full of it, and not only those who can be set down as eccentric or neurasthenic. Few men have been more sane, more virile, in a way more ordinary than Browning or Walt Whitman; and yet not Wordsworth himself has a clearer apprehension of the mystery beyond the universe. And common folks know it—gardeners and seamen, and young labourers, before the struggle of life dulls their sensibilities and binds them fast on the wheel of things, and nearly all women, especially mothers of little children, and all lovers. In intensity their perception will vary from a faint sense of wonder as at something not wholly of the earth, to the clear conviction that for a timeless moment they have been rapt into union with infinite reality. Probably there are not many who have not at some time known such rapture breaking in upon a moment of quiet after a period of effort, and effecting a characteristic temper, marked at once by a sense of detachment, so that one contemplates oneself and the world objectively and in vivid perspective, and also of sensitive sympathy and kinship with all that is. For a time one lives among the familiar scenes of one's home as if one were a guest from elsewhere, a stranger to whom everything was new and unexpectedly delightful. Then nothing is common or unclean; unattractive people, dreary surroundings, monotonous tasks are transfigured: we dis-

[1] Cf. Pratt, *The Religious Consciousness*, pp. 339–56, an admirable insistence on the normal or "milder" form of mysticism. For a discussion of spurious and real mysticism, see Note at end of chapter.

cover a fresh appetite for simple pleasures, joy in what we have hitherto taken for granted, friendliness for those who are too often mere conveniences—the postman, the lift girl, the railway porter. Like young lovers, we face life with a smile, and life smiles back at us. And yet, though we are in it and thrilled by it, we are also very obviously elsewhere. A secret presence accompanies us; in a secret world we are at home; and though outwardly we behave much as usual, indeed at our best, we have constantly the feeling that we are spectators as well as actors; and often the drama seems almost unreal—so incongruous as to touch our sense of humour, so unimportant that we are surprised at those who find its events of engrossing interest. Yet withal there is neither boredom nor absent-mindedness: we are overflowing with vitality, alert, observant, intelligent beyond our normal level, fulfilling with ease duties that would else tax all our powers, handling situations with tact and intuition, quick to understand, to pardon and encourage.

We have spent more space than they deserve upon experiences which are commonplace and universal, because it is important to realise that mysticism is the birthright of us all, and the essential element in religion. For "religion is the vision of something which stands beyond, behind and within the passing flux of immediate things." [1] "It seems well within the mark to say that a careful analysis of a single day's life of any fairly typical human being would establish triumphantly all that is needed in principle for the affirmation of the Absolute." [2] A string of dull prosaic sentences may serve better than a cento of familiar lines of poetry to show how ordinary are these moments of

[1] Whitehead, *Science in the Modern World*, p. 275.

[2] Bosanquet, *Individuality and Value*, Vol. I, p. 377. He is speaking rather of the Absolute as revealed by value than as experienced; but his contention is fundamentally the same as that urged here.

eternity, and how invigorating. They come in circumstances that vary with the individual: each has particular conditions in which he is sensitive and amenable to them. But always their coming is unexpected: it cannot be forced; and to anticipate it self-consciously is to be disappointed.[1] Suddenly, we know not when or why, the presence breaks in upon us.

Yet looking back upon it we can see that there have, in most cases, been fulfilled certain preliminaries in us which, if not essential, are evidently usual. When a period of unrest and effort with its attendant strain has been swept into oblivion by an emotional impulse which absorbs our whole attention, when the self has escaped from conflict, and interest is focussed and sympathy aroused, when for a space there is peace and the whole being expands under it, then conditions are ripe for an "emergence of deity." In a flash, and attended by circumstances seemingly irrelevant, but fixed indelibly in the memory, comes the "moment one and infinite."[2] Such at least would seem to be the case in experiences of the elementary kind that we have been considering. And if we turn to more definite mysticism, to the experts of the "mystic way," a similar preparation on well-defined lines is laid down as a discipline, with the object of attaining withdrawal from external concerns and concentration of the whole self upon meditation. The first stage is that of purgation; the second that of illumination preparatory to union.[3] Plotinus' instructions still serve as a model, and though the details of procedure recommended by various masters differ considerably, the general sequence and the goal to be attained are common to them all. Indeed it is the elaboration of

[1] For the contrast between mysticism of this type and that of the ecstatics or the hypnotised or the drugged, see Note at end of chapter.

[2] Browning, *By the Fireside;* cf. below, pp. 261–2.

[3] So the Catholic mystics and the *Theologia Germanica.*

the rules and the occasional exaggeration of the value of ecstasy that have been responsible for the belief in the abnormality of the experience thus promoted. Mystics have so often insisted on the arduousness of their training and upon the need for entire devotion to it, that they have given colour to the critics who ascribe their raptures to auto-suggestion, to compensation for thwarted ambition or an aberration of sex-passion,[1] and have prevented less specialised persons from claiming affinity with them. Plainly here, as elsewhere, the expert has to give himself up without stint to his particular calling, and in it reaches a level unattainable at less cost. Yet he differs in degree, not in kind, from other students of the same subject, or where, like the mystic, his speciality is a normal faculty, from the majority of his fellow-men. All recognition of value, all appreciation of beauty, truth and goodness, testifies to the emergence in us of the eternal—though in our consciousness of such emergence, as in our response to it, we attain various levels of completeness. It will be a real gain for religion if it is generally realised that, as Dr. Inge puts it, "what is called mysticism is only a further development of a universal religious practice, that of prayer"[2]—not least because, if so, we shall cease to identify prayer with "saying our prayers." The consideration of the relationship of the "cosmic emotion" which we regard as the essential characteristic of mysticism with prayer will bring us to the roots of the whole matter.

Before we discuss it, a word must be said about the meaning and limits of "suggestion." Since attention was drawn to the prevalence and power of hypnotic and similar influences the word "auto-suggestion" has hung like an evil spell over the religion of simple

[1] Cf. *e.g.*, Leuba, *The Psychology of Religious Mysticism*, and the criticism of Leuba's position in Valentine, *Modern Psychology and the Validity of Religious Experience*, pp. 36–47.
[2] *Science, Religion and Reality*, p. 385.

folks. They have had their moments of experience, they believe in the efficacy of intercession, they accept trustfully the faith of the Church; but they are haunted by the dread that after all it is only "suggestion," that they have believed because they were brought up in a Christian atmosphere, and have felt the thrill of religious emotion because they wanted it, and have accepted "answers to prayer" which were part coincidence and part credulity. The well-meant but misguided efforts of preachers and apologists to find in the "subliminal self" the locus of religious experience, to represent grace as operating on the subconscious, and to explain prayer in terms of suggestion, have opened up a broad way to superstition. The whole subject has become a bogey.

For such people the trouble is largely one of words. Suggestion, like hypnotism, still has for them an uncanny sound: they dress up the hypnotist in the mantle of the magician.[1] Or if they have outgrown the primitive stage, they are still convinced that if a belief can be ascribed to suggestion it is thereby proved to be illusory. If it is explained to them that every interchange of ideas can be described as suggestion,[2] that, in fact, the technical use differs little from the popular, and that auto-suggestion is simply the will

[1] Cf. the wise and plain statement on hypnotism in Dearmer, *Body and Soul*, pp. 96–9; for suggestion, Barry, *Christianity and Psychology*, pp. 41–64, and for a fuller treatment of this and kindred subjects, Worcester, McComb and Coriat, *Religion and Medicine*, pp. 41–92.

[2] Dubois, *Les Psychonévroses*, p. 126, contrasts suggestion, "which operates by the tortuous paths of insinuation," with persuasion, "which aims loyally at the reason." This is a distinction which would hold good for the sense in which many psychologists use suggestion. Baudouin and the Nancy school accept Dubois' distinction, and limit suggestion to the influencing of the subconscious (cf. *Suggestion and Auto-suggestion*, pp. 206, 207). Such limitation implies a separation between the subconscious and the conscious, which many of us would reject.

to believe, they heave a sigh of relief. I may be persuaded to buy a "gold" watch for a shilling or to try my luck at the three-card trick; to adopt M. Coué's formula instead of my morning prayers, or to accept the dream-interpretation of a psycho-analyst; to believe in the immediacy of the Millennial Dawn or the liquefying blood of St. Januarius. My attitude will be determined partly by my regard for the advocate of such a course, partly by the mood of the moment, but chiefly by my appreciation of values. I shall, in fact, behave exactly as I should towards any other proposal; and if I accept it whole-heartedly it will influence my life for better or worse. "No answer to the question how we have come to hold a belief is of itself an answer to the question whether the belief is true;" [1] and if I am unduly swayed by the influence of a speaker or the mass-emotion of a crowd, if, in fact, there is in the technical sense "suggestion," the proposition thus adopted may still be valid. As we have urged already, the fact of suggestibility can demonstrate nothing except that a conviction sincerely held has enormous power, that faith can remove mountains. There is, and has always been, much gullibility and much superstition among the religious; and their delusions are hard to dispel and potent in their effects. But the criteria by which we can test the value of prayer or the experience of God remain unchanged. They are matter for evidence and argument; and if we are now more aware than formerly of the danger of self-deception, that should only urge us to a more energetic testing of truth. "Religious truth," says Prof. Whitehead,[2] "must be

[1] Taylor, *Evolution in the Light of Modern Knowledge*, p. 474. Obvious as is this warning, it is constantly forgotten. Thus psychologists, like Tansley, neglect it when they assume that by exhibiting certain psychic mechanisms whereby man may have developed his religion and by calling God a "projection," they have disposed of the whole matter. Cf. *The New Psychology*, pp. 157–61.

[2] *Religion in the Making*, pp. 123–4.

developed from knowledge acquired when our ordinary senses and intellectual operations are at their highest pitch of discipline. To move one step from this position towards the dark recesses of abnormal psychology is to surrender finally any hope of a solid foundation for religious doctrine."

In this matter of mysticism the scope of suggestion is plain. That "cosmic emotion," the sense of the beyond and of the eternal, is an illusion is perhaps arguable; but the unexpected and immediate quality of its emergence, the inability to explain what has suggested it, the failure of attempts to treat it as pathological, and, above all, the fact that multitudes of human beings, indeed the majority of mankind, accept it as actual, give it a sanction as strong as that of any other conviction. *Securus iudicat orbis terrarum.* The experience of the eternal rests on evidence enormously weighty both in quality and quantity.

It is in the interpretation of it that suggestion plays its part. Visions and voices are the natural terms into which to translate the infinite. And many of us have vivid imaginations and "visualise" readily. The contrast, so familiar to students of Scripture, between the "graphic" habit of the Greek who sees a picture of what he describes and the non-graphic imagery of the Jew whose whole tradition is inimical to visualising,[1] illustrates the sphere of the personal equation of the seer. Mystics will obviously explain the impression made by their experience in the language and ideas, true or false, of their habitual thoughts.[2] Most

[1] Cf. Kennett, *In Our Tongues*, pp. 7–14. This characteristic of Judaism is important for the estimate of the "Resurrection appearances." A simple instance of the contrast between Jew and Greek is supplied in the Birth Narratives in the First and Third Gospels. In the First, which is eminently Jewish, the Lord speaks to Joseph in a dream; St. Luke, the Greek, represents the angels as sent to carry messages.

[2] Cf. Rufus Jones, *Spiritual Reformers in Sixteenth and Seventeenth Centuries*, p. xxiv: "We get from the mystic not his 'experience,' but his interpretation by means of the group-material which the race has gathered."

of us would accept the reality of St. Joan's mysticism, and if so would admit that the impact of it clarified her judgment and enabled her decisions; but that the details of the messages owed nothing to herself, or that they proceeded from purely legendary persons like St. Margaret and St. Catharine, this we may beg leave to question. When the mystic claims to have been in contact with saints, we may well feel a difficulty in view of the present uncertainty as to the possibility of communication with the departed, though for those who accept immortality there is no absolute obstacle; when he experiences the presence of Christ, our appreciation of his claim will be determined by our general beliefs and by our estimate of his power of accurate and objective statement. In any case, suggestion is obviously a very effective force in the explanation of religious experience—though to say so is not to imply that the verdict thus explained may not be correct.

To the elemental nature of this religious experience attention has recently been drawn by Dr. Otto's remarkable book *The Idea of the Holy*. His claim that the "numinous," the shuddering awe and utter dependence of a creature in presence of overwhelming majesty and energy, is an original and primitive quality of mankind, that this cannot be resolved into other instincts or sentiments, but stands in a category of its own and is the real basis of religion, is one that cannot lightly be set aside.[1] While we may criticise his insistence upon the non-rational and even anti-rational character of the numinous (an insistence due largely to reaction against the rationalising tendencies

[1] The problem as to whether or no there is a religious instinct is hotly debated—which is hardly surprising in view of the fact that no two psychologists agree in their classification of instincts. Pratt, *The Religious Consciousness*, pp. 71, 72, denies a religious instinct, but states that "inborn tendencies and needs when combined with the power of thought and the will to think are quite enough to account for some kind of religious attitude."

of contemporary Lutheranism), and criticise also his Teutonic emphasis upon the gruesome and ghostly,[1] he has unquestionably made a valuable protest against the neglect by psychologists of this sense of the wonder and terror of the holy. Dr. Otto has, in fact, met such criticism in his book, and made it clear that the tendencies to reduce religion to rationalism, to empty it of " the fear of the Lord," and to negate the " mysterium tremendum," are those against which he desires to protest. But in the course of his work his emphasis upon the neglected elements leads to a presentation of the subject which may easily be interpreted into mere subjectivism and superstition. Even in primitive times it may well be doubted whether the concept of " holiness " was ever devoid of intellectual and moral content—crude myth-making and crude tabus, no doubt, but representing something beyond simple emotion, and as such neither non-rational nor unethical.[2] Rather we should maintain that the " numinous " appeals to the whole man; that his response to it, though primarily a matter of feeling, involves a reaction of the complete self; and indeed that its influence is largely due to its absorbing and dominating effect. He finds himself confronted with that which transcends his imagination, fills his heart with awe, baffles and excites his understanding, demands the offering of his every activity to its service. Here is *mana*, a power not his own, which he can only explain in terms of his crude animism,[3] and may try to control by magic art. Such an experience of power at a higher stage of development calls out worship, the

[1] Cf. Oman, *Science, Religion and Reality*, pp. 286–9, for a criticism of this weakness in Otto's work.

[2] Cf. Malinovski, *Science, Religion and Reality*, p. 27 : " One achievement of modern anthropology we shall not question : the recognition that magic and religion are a pragmatic attitude built up of reason, feeling and will alike."

[3] Belief in the soul of man would seem to be universal; cf. Hobhouse, *Morals in Evolution*, p. 372.

exercise of emotion and intelligence and moral will in response to what is recognised as overwhelming beauty and truth and goodness. Fundamentally it is on both levels the same " cosmic emotion "; but for the more advanced of mankind holiness is charged with meaning in proportion to their enlarged appreciation of value, and interpreted in terms of that which alone is adequate, the highest that they can comprehend. The nature of the experience in its grandeur and its intimacy requires no less. Though itself infinite and indescribable, it so utterly satisfies and surpasses every aspiration of our being, that if we are to translate it into speech, only the supreme values, only what we call God, will suffice as its equivalents, and even they as commonly understood are inadequate.

This emotion of the eternal, so distinctive of humanity, so universal, so characteristic in its exercise, cannot be completely explained in terms of any other aspect of man's nature.[1] Anthropologists who have succeeded in penetrating behind the apparatus of mythology and ceremonial by which it is given grotesque and often horrible expression, have traced it everywhere, and in very many cases claim that even the most primitive peoples are themselves aware that cult and myth are at best a secondary and derivative substitute for an element in life far more profound and awesome. Beyond the " gods many and lords many," undescribed and indescribable, is the Mystery, the Great Spirit, the Dweller in the innermost, the Other

[1] Cf. Otto, *l.c.*, pp. 128, 133. Evelyn Underhill, *Mysticism*, p. 59, has called this the " mystic sense," and maintains that it " transcends the emotional, intellectual and volitional life of ordinary men." " Psychology knows nothing about it," writes Pratt, *Religious Consciousness*, p. 448. " A complex growth from a variety of instincts," says Thouless, *Introduction to the Psychology of Religion*, p. 125. " A character inherent in the very structure of the human mind," says Trotter, *Instincts of the Herd*, p. 113. Personally I do not regard it as a separate or special sense, but as the highest activity of the whole self.

than self who stirs the soul with strange joy and convulses it with nameless dread, before whom man stands naked and ashamed.[1] To explain this as simple fear of the unknown, gendered in an age when humanity lived in suspicion and constant peril, is to misconceive the element of wonder in the experience; to describe it as a projection of the Father-complex is to confuse the myth with the emotion that gave rise to it; to derive it from Narcissism, the hallucination of expansion and security following after a turning inwards of *libido* upon itself, even if such a theory covers certain of the facts of some mystical experiences, fails to account adequately for the immediate impression of "otherness," of something outside the self bringing with it aesthetic, intellectual and moral quickening, which is characteristic of the experience.[2] The emotion is eminently simple and primary: neither "blank misgivings of a creature moving about in worlds not realised," nor the shudder of "panic fear," [3] nor the wonder at ordered but uncomprehended beauty describe it fully, though each represents an aspect of it. It can be felt more easily than defined. Walk out under the stars; see the oncoming of a thunderstorm or the glory of the setting sun; wander through a wood in April or November; study the moods of the sea or the moun-

[1] This does not mean an acceptance of the belief in a "primitive monotheism," but that myth and cultus spring from an indefinable and primary "cosmic emotion."

[2] This conviction of objectivity is, of course, explained away by psychologists like Delacroix (*Études d'Histoire et de Psychologie du Mysticisme*) as due to the sudden uprush of an image from the subconscious. The case of dreams and delusions quoted as parallel to this (*e.g.* by Thouless) does not sufficiently meet the evidence (cf. Pratt, *The Religious Consciousness*, pp. 440–1). The quality of the experience, its effects, and its consistency with conclusions reached on other grounds distinguish it from hallucinations.

[3] Oman, *l.c.*, insists that such fear has nothing in common with religion. This is only true, I think, of the higher levels of religious development.

tains; and if you are a simple person with normal instincts, the "numinous" will envelop you, and you will understand the origin of primitive religion far more clearly than by reading learned treatises on animism or tabus. For such "cosmic emotion" is not the compensatory reaction to nature of a sophisticated worldling: it is far more frequent in shepherds and tillers of the soil than in the "educated" and the city-bred, among the dwellers in wild places than where all is trim and tidy, before the "shades of the prison-house begin to close" than when we have settled down into our cells.

To symbolise and commemorate and explain this experience man must needs have recourse to ideas borrowed from lower and sectional categories. Certain places, "haunts of ancient dread," become sacred; certain objects connected with the mysteries of birth and death are fashioned or adopted to represent it; appropriate ritual, a pantomime of terror and rapture, takes shape; tales, embodying man's guesses in vivid imagery, are told and embellished and remembered; magic, the attempt to harness the power of the mystery and to use its fear and joy by specific acts for specific ends, is a specialised outcome of the same primitive emotion.[1] For its interpretation every aspect of man's life, every instinct of his being, is laid under contribution. To treat it on that account as a sentiment round which such instincts are grouped is to negate its primary character: it is a fundamental experience of the whole self, a thing *sui generis*, the source of mythology and of cultus, of religion and magic, so impressive that it forms a background for all other energies, so transcendent that imagery, however varied, fails as its equivalent, so simple that its apprehension is as familiar as it is indescribable.

[1] That there is any connection between magic and religion is denied by many. Undoubtedly they diverge very early; but from the same ultimate stock. The difference depends largely upon the definition given to religion.

Mysticism, cosmic emotion, the perception of the numinous, the emergence of the eternal—whatever we call it, here is the essence of religion, the supreme achievement of humanity. With man's development this which we have considered in its infancy is evolved through manifold phases under a multitude of forms. Magic diverges early, being concerned solely with our own fears and wishes : [1] the cruder representations of deity, sacred trees and sacred beasts, disappear : moral and intellectual elements play an ever larger part. To trace the history of the process is the task of the student of comparative religion; underlying it all is the mystery, and wherever there is vital religion, when the reality is not obscured by traditional usages of creed and ritual, will be found testimony to the practice of the presence of God as man's noblest employment. To live conformably with Nature, to find the real that is behind phenomena, to attain Nirvana, to serve the living God—here, in very varying degrees of fulness,[2] is testimony to the same fundamental impulse. Different philosophies and cultures supply their characteristic formulae, which often cramp or distort the quality of the experience which they would describe. However defective the formulation, the endeavour would seem to be the same,—the attainment of unity with the Eternal,—and the mode of it is in the fullest sense of the word prayer. If mysticism is the experience of the presence of God, prayer is the practice of that presence. " Pray without ceasing," is Christ's version of Aristotle's ἐφ' ὅσον ἐνδέχεται ἀθανατίζειν.

Yet the terms vary, not only because of the different aesthetic, intellectual and moral levels of those who employ them, but because consequently the experience

[1] Cf. Hobhouse, *Morals in Evolution*, pp. 397–8.

[2] As is maintained below, pp. 224–5, the respective values of these several interpretations can only be tested by their influence upon character and by their intellectual, moral and aesthetic adequacy. Judged thus, an impersonal exposition like that of Stoics or Buddhists seems insufficient.

itself is in various degrees incomplete.[1] We would not deny the emergence of the eternal in those who regard it as a mere "swooning into the arms of the infinite": we would include even the devotees of Yoga or of opium as in some sort mystics. But the full quality of the experience immensely transcends the attainment of peace and ecstatic passivity. The Eternal is not our nurse, nor our mother only. He is God, Light and Life and Love, who thrills us as we are emptied of self with the boundless energy and throbbing vitality of His nature, who convulses and rends away the barriers of our egoism, who possesses and controls and inspires our very selves. The power of an intolerable current courses through us, leaving the little human frame shaken and strained, yet transfigured and free. He takes us, this Lord of ours, and fills us till our souls burst with the pressure of Him: He takes us, and fills us with a life not our own, a life which is beyond sorrow and romance: He takes us, and in His grip we live abundantly, sharing for a moment the activity of His overwhelming love. To write of such communion with God in terms of rapture, of bliss, of peace is to show it incomplete. There is agony in it, and passion, and fortitude, and uttermost tension of endurance. There is the Cross in it, an experience beyond pleasure or pain, beyond strife and rest. It is a stark energy so tremendous that we cannot call it either joy or suffering; it is both of these; and they are not two but one. It is an exquisite sensitiveness of the naked self stripped of all its defensive husks of pride and sharing the sympathy of Him who is the source alike of our laughter and of our tears. It is an intensifying of vitality such as we cannot translate into the language of the more and the less; nor

[1] "The character of religious experience is determined in great part by the intellectual theories previously accepted." —Rashdall, *The Idea of Atonement*, p. 472. This whole passage quoted by Barry, *Christianity and Psychology*, p. 125, is a valuable protest in support of the position here taken.

can we recapture the form of it in any mode of speech or art. It is not Nirvana; nor even the Beatific Vision: [1] it is not Valhalla; nor even wholly Gethsemane. Calvary and the great cry from the Cross, the very soul of all achievement and all anguish, is its only symbol. It is the casting out of self that God may be all in all, which is yet not the absorption but the fulfilment of individuality.

Under such influence not only is every faculty enhanced and the whole personality raised to a higher power, but lower motives are inhibited, hesitations removed, aspirations transformed into actualities. Freed from all self-consciousness, integrated in every fibre of his being, indifferent to praise or blame because free from ambition and fear, taking his place in the community of the Universe by his union with God, the mystic in his hour is far removed alike from his fighting, scheming, advertising, posing self and from the dreaming and ecstasy of the visionary. He is ablaze with light, full-charged with life, pulsing with love.

For those whose concept of personality is not couched in terms of limitation, and in whom the validity of their religion is best attested by its moral, intellectual and aesthetic effects, a notable feature of this experience is its distinctly personal character. It has the peculiar quality of contact with a living Being, with One who possesses overwhelming vitality and power of communion. To speak of this Being as the supreme Reality or the First Cause or as the Unity behind phenomena, or even as Activity or Eternity, is to suggest an impersonal abstraction. Personality is a term so highly coloured by our ideas of individuality that it is apt to be misleading; [2] but we have seen that such limits do not belong to the full development of the

[1] Cf. Sorley, *Moral Values and the Idea of God*, pp. 512–14, as showing its inadequacy, and emphasising the worth of adventure as against contemplation.

[2] Cf. the discussion of this question by W. H. Moberly, *Foundations*, pp. 494–507, and by Webb, *God and Personality*, pp. 213–51.

personal. If we can clear our ideas of their anthropomorphism and get rid of the concept of God as a glorified individual,[1] we may call Him with whom we have union a Person; if not, supra-personal may be less objectionable. In any case, here is Life, Life with unlimited energy, Life from which pulses boundless vigour, Life which thrills and enfolds and saturates us. In considering the impact of the universe we slipped inevitably into the language of personality, while admitting that apart from the mystic experience such an ascription might be permissible, but could hardly be given clear probability. What Nature allows, mysticism enforces and for many of us guarantees. Theism, the general hypothesis to which mankind turns as naturally as a flower to the sun, derives its primary evidence from the sheer quality of our supreme moments. The conviction thus grounded must be tested and verified. But unless insuperable obstacles can be raised (and hitherto none such seems to have been formulated) we can accept and act upon what we could only reject by casting doubt upon the validity of all our knowledge.

And, moreover, though we can only form a concept of life under conditions of succession and extension, our experience of God is essentially not so conditioned. In communion with Him "who is and was and is to come" we apprehend then and there the timeless infinity of reality. Constrained as we are to think in terms of change, battered and bewildered by the ebb and flow of emotion, confined for the working out of our lives within a narrow circle, we are none the less haunted by the dream of eternity. It is easy for the superficial critic [2] to ascribe such dreaming to reaction, to world-weariness, to failure, to cowardice. But it is

[1] In this sense I can accept Whitehead's conclusion, "that this religious experience does not include any direct intuition of a definite person, or individual" (*Religion in the Making*, p. 61).

[2] *E.g.* Max Nordau, *Degeneration*, Vol. II, chap. I.

not, in fact, the weak-minded or the ineffective who have called upon mankind to live eternally; and when by experience the dream becomes a conviction, its influence is seen in the humility which is strength, and the sympathy which is joy, and the peace which is romantic adventuring. Is it then a device invented for the sake of its survival value, a by-product of the "will to live"? So some have tried to explain away religion; and indeed few of us can be content with the obvious reply of Pragmatism which says, "This helps men to live, therefore let us accept it as valid." We would not and could not deny that the knowledge of God which is eternal life promotes and secures the well-being of humanity; we would, indeed, insist that here alone is man's hope and end. But to treat as a comforting delusion an experience which drives men to the Cross, which challenges all their ambition for earthly success and all their delight in ease and security, whose rewards are strength for martyrdom, and joy in sacrifice, and romance in selflessness, is to credit mankind with a curious idea of comfort.[1] If the love that suffers be the supreme value in human life, then religion, in enabling it, serves man's true aim and is itself concerned with reality; if it is not, then in inventing religion we have over-reached ourselves; for the will to live has produced in us a will to count our lives well lost.[2]

That we have cheapened our faith, as the disciples did, by expecting easy crowns and thrones, that we have striven to commend it as a profitable investment,

[1] Cf. Hobson, *Domain of Natural Science*, pp. 494–5; and Whitehead, *Science in the Modern World*, p. 275: "Above and beyond all things, the religious life is not a research after comfort."

[2] This dilemma is sufficient answer to those who assert that religion is simply the "projection" or objectifying of human desire, whether the projection be represented as individual (as *e.g.* by Tansley) or as social (as by Durkheim and the writers in *L'Année Sociologique*).

that we have overlaid the Cross with meretricious ornament, is our shame; and for it we deserve to have our experience of God called in question. There remain the great ones of the race, those who, having found the Eternal, have lived in agony and ecstasy, "troubled, yet not distressed; perplexed, but not in despair; persecuted, but not forsaken; cast down, but not destroyed . . . as, unknown and yet well known; as dying, and behold we live; as chastened, and not killed; as sorrowful, yet alway rejoicing; as poor, yet making many rich; as having nothing, and yet possessing all things." [1]

> "Thy friends are exultations, agonies
> And love, and man's unconquerable mind." [2]

And their achievement is the testimony to the reality of the unchanging God,[3] to the power which comes to those who have learned from Him to live in the heavenlies and to see the relationships of earth from the outlook of eternity. In considering the knowledge of the divine, as in any other subject of human interest, the experts have a right to be heard; and their evidence, coming as it does with a singular measure of agreement from men and women of all ages and races, and congruous with what we lesser folks feel and would express, deserves to be studied humbly and sympathetically.

And it points to the conviction that the self, although it can only form conceptual images of itself and its activities under conditions of time and space, yet apprehends and is really capable of relationships that are eternal, and itself exists eternally. Even the less

[1] 2 Cor. iv. 8–9 and vi. 9–10.

[2] Wordsworth, *To Toussaint L'Ouverture.*

[3] Cf. Bosanquet, *Individuality and Values,* p. 379: "What those who call the Absolute non-human . . . make of the love of mothers, and the devotion of comrades among the poor, I cannot imagine."

spiritually developed of us have in our measure and at moments of inspiration the sense that the life which we analyse into terms of body, mind and spirit, and study under these categories, is, in fact, of a nature that cannot be finally classified thus. To interpret reality we must have recourse to physical and psychic science, and should welcome the attempt to explain as accurately as we can our functioning in its bodily and mental aspects; for this will help us to define and understand the conditions of our fullest experience. We are false to the evidence when we assume that our investigations cover the whole of the real field of existence, and proceed to condemn what cannot be thus investigated as illusory or as less " actual " than the physiologically or psychologically explicable. Among the urgent needs of the Church is the exploration by the spiritually mature of the nature of their communion with God. They testify to the potentialities of contemplation, to the fact of relationships unconditioned by material or psychic limitations, to a sphere of reality not characterised by succession and extension. And they have, I believe, the power to lift others on to the same plane. This spiritual, or, as many would call it, supernatural level represents for us the apex of the pyramid of creation, the emergent deity which Prof. Alexander teaches us to regard as the culmination of the evolutionary process. On such a level scientific methods of verification, applicable enough to what can be weighed, measured and described, fail as tests: truth can only be " spiritually discerned." To many it will on that account seem mere subjectivity, valid, may be, for the mystic, but not necessarily so for those who do not share it, and, to judge from its literature, often highly abnormal and extravagant. No doubt the experience itself cannot be assayed. But in its interpretation into speech, and still more by its translation into action, as it reveals value, we others can " prove the spirits." And, in fact, as so sifted the testimony of the mystics

points to a reality for the quality of which they are in remarkable agreement. Beyond the visions and the messages, and on a higher level than the accounts of it—for these are highly coloured by the mystics' personal beliefs and imagination—is an experience which scientists cannot afford to disregard even if as scientists they feel that it lies outside their province, an experience which for very many supplies the clue to a right understanding of the universe. An adequate exposition of it is of primary importance for any who would attempt to deal faithfully with life. "We may have philosophy and science, criticism and culture in perfection, and a finely organised society too, and still have no life in us," wrote Prof. Gwatkin twenty years ago; and added, "The spark of life is mysticism. I do not mean the follies and worse than follies which bear the name, but the conviction acted on, if not expressed, that a true communion with the divine is given to all that purify themselves with all the force of heart and soul and mind." [1]

To claim that the experience of the eternal is the essential element of religion is not to identify religion with certain transitory moods or to condemn less exalted activities as profane. That would be to accept the gibe that religion is concerned with the unknowable, and can therefore be safely neglected by all practical people. It is true that the "numinous" is strictly infinite, that the mystics have always found a negative method of definition the least inappropriate, that our highest categories are unworthy of what they would define. Yet the impact upon us of such communion leaves, as we have tried to show, a very marked effect—so marked, indeed, as to reinforce and establish for us an appreciation of values of which otherwise we should perhaps have no knowledge and no criterion. If it be the fact, as we claim, that this experience produces in us not only a purifying of the emotions, but

[1] *The Knowledge of God*, Vol. II, p. 327.

a detached judgment and sense of proportion, and also a strong sympathy and desire to befriend,[1] then to it may be ascribed the development of those aesthetic, intellectual and moral qualities which constitute man's normative equipment and form the noblest part of his social heritage. In this way we are justified in declaring that from God comes whatever we perceive of beauty, truth and goodness, since communion with God is accompanied by the quickening in us of an awareness of them. Art, knowledge and virtue are together the children of the Spirit and His handmaids; and where religion is fully developed the three will be found in harmonious activity. If by way of protest against the misuse of any of them, when art has become sensuous, or knowledge arrogant, or virtue pharisaical, religion has for a time become puritan or obscurantist or antinomian,[2] its balance has been disturbed and it has failed to satisfy man's need. The test, both for the individual and for the Church, of the validity of their supreme experience can be found only in the effects of that experience in the fostering of aesthetic, intellectual and ethical achievement. "These three lines of revelation are distinct without being separate. . . . They are the three aspects under which the life of God is known to us." [3]

It is here, then, that we find that universal and dominating ideal by which, as we have seen, characters and societies are integrated and empowered—and this despite the fact that individuals differ widely both in their capacity for apprehension of the eternal and in the particular channels along which they will most easily approach it. Between the masters of the mystic way

[1] Cf. Dimond, *The Psychology of the Methodist Revival*, pp. 204–7, for evidence of the effect of conversion in stimulating volitional, intellectual and aesthetic achievement.

[2] As it did among certain Gnostics in reaction against legalism.

[3] Inge, *Faith and its Psychology*, p. 49; cf. also pp. 223–41.

and the multitude of *hommes moyen sensuels* there is at first sight a world of difference: the latter would be amused or insulted if it were suggested that they too were mystics; and on the face of it such a faith needs verification. It may be that there are some who have never known a stirring of the divine, for whom neither music nor flowers, the search for truth nor the zest of work well done, the laughter of children nor the handclasp of a friend have any power to whisper of the beyond, who are armoured at every point against the divine suppliant: it may be—but I beg leave to doubt it. Ask such men about religion, and they will profess apathy, supposing you to mean church-going; talk to them of vision and ideal, of St. Theresa or Wordsworth, and you will get no response; but watch them in their homes and their hobbies, when they are unsuspicious and absorbed, and you will find their gods. Somewhere there is a soft spot, an aspiration not wholly of earth, a discontent which witnesses to a horizon unattained. We must all have known times when people whom we have set down as irredeemably "fleshly" have amazed us by disclosing a gateway of the soul which implied an open avenue into spiritual life. Here, shielded from view by a convention that forbids a man to wear his heart upon his sleeve, choked up and overlaid, as in us all, by gross and material pursuits, regarded with shame and acknowledged with confusion, is the authentic passion, a spark of the everlasting fire, the baptismal seal of the Spirit. And because there exists below superficial contrasts this common capacity for sharing in man's highest and most universal experience, we may claim that in it can be found the basis of our integration.

To those who think of religion in terms of its institutions, who suppose that it can be identified with baptism or church attendance or orthodoxy, such a definition of its essential character may seem intolerably subversive. Far be it from me to suggest that such

matters are unimportant: as means to life in God, to fellowship in the practice of His presence, they have, for most of us at least, an obligatory claim. Few of us, if any, can dispense with means so hallowed, so productive. But that for the Christian they are wholly secondary, is clear both from the prophets of the Old Testament and from the evangelists and apostles of the New. "By their fruits ye shall know them," [1] said Jesus; and it is probable that He left no other necessary test. "As many as are led by the Spirit of God, they are the sons of God," [2] and "the fruit of the Spirit is love, joy, peace, longsuffering, gentleness, goodness, faith, meekness, temperance"; [3] a religion thus defined ought to be able to keep creed and cultus in their proper places, to see them as means, not ends, and to insist that when they are given value apart from their spiritual purpose the result is not merely damage, but disaster. Institutionalism ought to enable us to express and intensify our experience of God, to realise corporately our common life in Him, to build up the fellowship of the Spirit. In any case institutions of some sort are essential, whether they be as simple as those of the Society of Friends or as elaborate as those of the Holy Orthodox Church. But they are always dangerous: it is a short step from the saint to the Pharisee, a step over a precipice. In view of the history of Christianity, of the tendency to claim that something else besides life in God is of the *esse* of religion, of the peril of exclusiveness as if spiritual life were only attainable by the baptised or the communicant, it is well to remember that beauty, truth and goodness are not the sole perquisites of the churchman, that "God reveals Himself in many ways," and that in the present state of the Church "a man may be a Christian while believing himself hostile to all that some consider essential in Christianity." [4] To deny that many

[1] Matt. vii. 16. [2] Rom. viii. 14. [3] Gal. v. 22.
[4] Samuel Butler, *Note Books*, p. 352.

people apprehend the eternal far more readily under the open sky than in a church, to impugn the validity of non-episcopal sacraments, to identify religion with the acceptance of particular dogmas or the observance of special rites, these are indications of a perverted attitude, which worships the creature instead of the Creator, identifying (incredible as it will appear) its own denomination with the Kingdom of God.

Yet religion is not, and can never be, a matter of purely private inclination, of temperament and subjective experience. At the heart of it lies the apprehension of God by the individual, but not by the individual apart from his neighbours. We have seen that a fully developed personality is only realised as each of us becomes integrated by the Spirit of God and as all find their places in the membership of a Spirit-filled community. Nothing less than the unification of humanity in God, the welding together of mankind until we are all "of one heart and of one soul,"[1] is our goal; and with so high an aim there is little room for fads. We cannot deny that men find spiritual life through many channels; for the whole universe is God's self-manifestation, His sacrament. But the man who wanders off for his communion in the woods is as much in danger of becoming self-righteous and exclusive as his brother for whom incense and vestments have more meaning than primroses and daffodils. There is at least as much pharisaism in the cults as in the churches. It does not follow that an institution whose organisation has developed through the ages under the influence of a common ideal and the pressure of a common need, and which has proved its power to convert sinners and produce saints, must necessarily be wrong—even in the twentieth century. To learn to pray without ceasing by the discipline of particular times and modes, to discover by special sacraments the sacramental sanctity of God's creatures, to share the

[1] Acts iv. 32.

communion of the Spirit by the exercise of corporate worship, to grow in the understanding of God by the reminder of His revelation in Christ, to study the "mystery of godliness" under the guidance of saints and sages, to be linked in a living fellowship with an innumerable company of the faithful, to see ourselves and all our activities as serving a common purpose and inspired by an all-absorbing love—few of us dare easily reject "so great a salvation."

For if the end is plainly seen, if the practice of the presence of God is the sole achievement, the sole satisfaction, for us, we have therein a criterion by which to test the means. It is not tradition, nor external authority, nor individual preference, but always the eternal life of mankind that is our standard. Each of us will best fulfil it as he grows in love, as he enlarges his sympathies, trains his understanding, and follows after righteousness, as he translates the language of eternity into the daily speech of human feeling and thought and action. It is through the whole self alone that the presence of God can be expressed;[1] it is through corporate personality (the "body of Christ") that He can be fully realised on earth, when "we all come in the unity of the faith, and of the knowledge of the Son of God, unto a perfect man, unto the measure of the stature of the fulness of Christ."[2]

Religion is an activity of life: nothing less than perfectly developed personality—that is, personality at the level of communion with the eternal—can be an adequate translation of deity into the terms of man's comprehending.[3] Such is the conviction at which we have arrived, and which, in fact, underlies the Christian doctrine of the Incarnation. To test our conclusions by reference to their bearing upon Jesus will be to

[1] Cf. Streeter, *Reality*, p. 40: "The personality of the religious man is the only real expression of religion."

[2] Eph. iv. 13.

[3] Cf. Barry, *Christianity and Psychology*, p. 181: "Only in a real Incarnation have we a truly normal personality."

discover how far they accord with the truth enshrined in the Catholic tradition.

As we have already seen, our study of Jesus must begin with the attempt to recover by scientific investigation of the evidence a " plain tale " of His life and character. To begin with the assumption that in Him is God is too often to continue with the assertion that thus and thus He must have acted. As with Nature, so here, we go not to reinforce our own conclusions, but to learn the facts—and until we have done our best to collect and scrutinise the available data, we cannot proceed to develop from them a doctrine of His Person. This is not the place to undertake the preliminaries, to discuss the validity of the Pauline and Johannine interpretations, or estimate the respective worth of St. Mark and Q and the Lucan and Matthaean additions. Plainly our material is of widely differing value: there is much that is reasonably authenticated, much that is evidently disputable, some that is probably legendary. But few scholars would deny that the result, though it may leave us doubtful of the Virgin Birth or the bodily [1] Resurrection, gives us a vivid portrait of a surpassingly transcendent personality. Here is One whom we hesitate to classify, but who none the less makes upon us a clear impression of His quality and explains for us the magnitude of His influence. We cannot but confess that " never man spake as this Man," that here is the supreme and perfect representative of our race. Can we go on to say " My Lord and my God "?

If perfect Manhood is manhood living " in the Spirit " at the level of eternity, the lines of a doctrine of Incarnation are clearly definable. Here in Jesus is such a life. Test it by our most rigid standards in its sympathy, its sincerity, and its righteousness; estimate as best you can its emotional, intellectual and moral worth.

[1] Using this word to denote the re-animation of the physical structure.

Then see if there is not evidence of an abiding and flawless communion with the Father, a communion unbroken save perhaps for a moment in the agony of Calvary, a communion to which the absence of all sense of personal sin and the acceptance of a unique relationship to God alike testify. Add to this the witness of the ages, of the multitudes of folk of every sort, from the disciples of the first century to those of to-day, who, differing in every other respect and reaching agreement by widely varying paths, have proclaimed Him Son of God and found in Him a creative power by which they have been " made new." Finally strip yourself, if you can, of presuppositions, examine the evidence frankly, and let His Personality make its impact upon you. Very many who have thus come to Him have discovered that He fulfils for them all that they can conceive of deity, fulfils it and transcends it immeasurably. Here, they would confess, is God's image, the translation of infinity into the speech of mankind, the light that lighteneth every man born into the world, the Godhead incarnate.

If that be our faith, its interpretation is not difficult. What in us emerges as a spasmodic experience in flashes obscured even at their brightest by the limitations of our development and the stains of our rebellion, is in Him union continuous and unimpaired. He is Himself one, Jesus Christ, a man among men, " never leaving the level upon which men and women at their best can move and act," [1] yet always and everywhere God, revealing in His earthly life the nature of the Eternal. The Spirit, manifested in increasing fulness through all the levels of creation, and at last by man consciously acclaimed as the source of his highest inspiration, receives in Jesus unique expression and in His followers a new and infinitely enriched acknowledgment. Through the centuries, men had groped after God, dimly aware of His presence, vaguely

[1] Weston, *The One Christ*, p. 173.

conscious of His nature; here they saw Him unveiled in all His holiness, yet recognisable and available, the satisfaction of their dreams, the answer to their guesses, Jesus Christ, the same yesterday, to-day and for ever, the Way and the Truth and the Life.

Yet though devotion fastens naturally upon His union with God, and therefore tends to minimise His manhood and even to substitute mythology for history, if we are to accept Him as Incarnate Saviour, it is as Man that we can first and best interpret Him. We have seen that for us individuality is expanded into personality by the integration of our selves and the enlargement of our sympathies. In Jesus both are fully displayed. His life is " all of a piece "; His purpose clear and unfalteringly pursued, His activity spontaneous and free, His nature so simply uniform that its congruity appeals irresistibly to us even when our inadequate sense of value makes us hesitate to classify Him. As with the universe, so with Him, the categories of beauty, truth and goodness seem commonplace and inappropriate. We feel that He has given a new meaning to them, a meaning which we are not big enough fully to grasp. There is in Him a poise and balance, a sense of wholeness, a raising of all our powers to their highest level, an adjustment within the orbit of a single and consistent self. We see Him as it were in sections: at one time His volcanic energy, at another His superhuman restraint, His shattering severity and His overwhelming gentleness, His dauntless fortitude and His intuitive compassion, His loneliness and His sociability, His sublimity and His delight in common things. His character seems a series of contrasts: it ought surely to be a jangle of discords. And yet the qualities we analyse and differentiate are in Him united and harmonious; each element takes its fitting place, each is essential to the full-orbed majesty of the whole.

His personality is perfectly integrated; it is also

fully developed. That is the secret of His apparent many-sidedness. Like Nature, He strikes every note in the scale of our experience, and draws from them the music of the spheres. That is why the doctors of the Church have called Him Man rather than a Man, and have dwelt upon the universality and representativeness of His Manhood. It is perhaps the underlying truth in the meaningless doctrine of impersonal humanity, though, in fact, such a belief drew its origin from other and less satisfactory sources. At least with the evidence before us we need not be surprised that all nations and languages have hailed Him as their own, and striven with marked ingenuity to isolate and emphasise the aspect of Him that appealed to them, and to found upon it curious explanations of the rest and more curious mythologies to bolster up the explanation. No doubt all such schemes are foredoomed to failure; for the eternal cannot be fully comprehended, and we can only define what we have surpassed. Yet if we state that in Jesus His individuality as a Man is, in union with God, so complete a personality that He is at once and always both Very Man and Very God, *totus in suis*, *totus in nostris*, and that He is thus that to which the whole universe aspires, the creature perfectly at one with the Creator, we shall at least bring a measure of consistency into our thoughts.

To state the matter more concretely will be to summarise our results and to illustrate the difficulty of thus rationalising the manifestation of the Spirit. Few can study the apparent paradoxes of Christ without feeling that behind what looks superficially like inconsistency or unpractical idealism lies the outcome of a Spirit-filled experience. We are aware that the Sermon on the Mount, though its demands may not be easy to fulfil in concrete cases, satisfies our highest spiritual inclinations; we may not fully understand it; we certainly cannot translate it into a code of rules; its practical imitation and even at times its moral

adequacy are matters for argument. Yet despite the difficulties, which a candid student will face honestly and consider persistently, there remains the conviction of its compelling value. That it transcends my powers of comprehension, that there are elements in it towards which I can only aspire, that I cannot grasp entire the scheme of things that it reflects, only adds to my conviction that here is a way of life which, had I the requisite inspiration, I should find complete, consistent, compelling, life as a spiritual community would display it, life in the Kingdom of God. Yet when, with the aid of exact scrutiny of the documents, of full allowance for the characteristics of the narrative and the personal equation of the authors, of historical research and psychological analogy, we try to reduce this impression to a scheme of ethics, the attempt fails : the casket of moral theology only contains a selection of its dry bones, its life breaks out of the tomb. And if we try to produce a biography of the Teacher, the result is not more successful, as the countless " lives " of Christ bear witness. Most of them have two qualities in common, their ingenuity and their inadequacy. They are composed with obvious scholarship, sympathy, earnestness ; and yet vary indefinitely and often to the verge of contradiction. They set out to describe Jesus ; they end by describing only a religious projection of their author.[1] If they are the work of those rare students who have acquired knowledge without forfeiting imagination and freshness, like Dr. Glover or Dr. Schweitzer, they are often arresting and beautiful ; but their subject will not, as our cousins say, " stay put " ; their categories cannot enclose Him. No other character (except God !) could be described honestly in such divers fashion ; no other

[1] Similarly each race portrays Jesus as a fellow-countryman, cf. Inge, *Lay Thoughts of a Dean*, p. 365, or, as an Indian wrote to me, " You give us for Christ a Sahib booted and spurred with fork and spoon from Birmingham."

character so obviously transcends his interpreters. Such criticism of them is necessarily subjective, and may be wholly mistaken; but if a personal confession is permitted it would be this. I have learnt much from many, indeed from most "lives" of Jesus, and envy the knowledge, sincerity, versatility and insight of their authors. Each of them helps me to appreciate elements in Him which might otherwise be lost. But none of them in the least satisfies me as doing full justice to Him; and when I try to balance one against another, I see merely their incompatibility. Yet when I study the New Testament carefully, trying not to shirk or explain away apparent contradictions or to neglect any sound strand of evidence, the result, although it defeats my powers of analysis, satisfies my deepest intuitions. How the same Person could call the missionary Pharisee "a child of Gehenna" [1] and yet warn with the threat of the same Gehenna him who should call his brother "Thou fool"; [2] how He could at once cleanse the Temple and say, "Do not stand up against the evil" [3]; how He could both refuse [4] and on another occasion promise [5] thrones to his followers—these, like the problem of His teaching about the Second Coming or the meaning of the bitter cry upon the Cross, exercise the ingenuity of those who would make of Jesus a pacifist,[6] or a "Die-hard," [7] a dreamer,[8] or a Rotarian,[9] a social reformer,[10] a mystic,[11]

[1] Matt. xxiii. 15.
[2] Matt. v. 22. It may well be urged that the First Gospel where it stands alone is weak evidence.
[3] Matt. v. 39. [4] Mark x. 40, etc.
[5] Matt. xix. 28; Luke xxii. 30.
[6] *E.g.* C. J. Cadoux, *The Early Church and the World.*
[7] *E.g.* Gough, *The Fight for Man.*
[8] *E.g.* Jackson and Lake, *The Beginnings of Christianity*, Vol. I, pp. 267–99—the only treatment known to me which makes Jesus merely dull.
[9] *E.g.* Bruce Barton, *The Man Nobody Knows.*
[10] *E.g.* Dougall and Emmet, *The Lord of Thought.*
[11] *E.g.* Middleton Murry, *Jesus, Man of Genius.*

or an Apocalyptist.[1] It is abundantly necessary so to attempt to classify and rationalise; each one of us must do it to the best of his ability, and each must help his fellows; but I confess that though there are times when I glimpse the meaning of Him and reach out to understanding of the paradox of goodness and severity, the systematising of it all eludes the grasp. I can see and explain aspects; if I set them out they look contradictory: yet beneath the surface contrast they fill me with a sense of congruity and of completeness; if I cannot fully understand, at least I want to worship. That such confession is mere obscurantism will be the obvious verdict. So be it. Let the critic wrestle as I have tried to do with the problem. He may attain its solution: I can merely "follow after," with mind lagging behind spirit.

And beyond all other aspects one is for me at least dominant. Jesus is supremely the sufferer whose suffering redeems. The picture that haunts me is not that of the gentle Shepherd gathering His lambs to His bosom, nor even the heroic adventurer striding before the frightened group of disciples on the road to His Passion at Jerusalem. It is the Jesus of Gethsemane, striving to hold and be held by God's will even if it break His Mother's heart and strain His friends' loyalty to the uttermost, striving for the soul of Simon lest Satan sift him like wheat, and for the soul of Judas that the traitor too may come to repentance. And here is a proof of His surpassing and unique grandeur. The Beloved Disciple could not rise above hatred for the Son of Perdition. Dante could only place him in the very jaws of the archfiend. The Church has always rejoiced to show its piety by loading his memory with obloquy. Yet when the poor broken soul flung away his dirty money and went by suicide to his own place, surely the Master

[1] *E.g.* S. A. Mellor, *Jesus of Nazareth.* I mention only recent works in English.

met him; and the agony in the Garden was not in vain. We loathe and condemn and destroy: He suffers and saves.

It is this conviction that Jesus has in Him the quality of pure Spirit, the quality which many find also in the universe, rather than any formulated doctrine of Christology, that inspires the belief in His Godhead. His case is so close to that of the general problem of Theism. It is easy enough to rhapsodise about Nature and the God of love revealed in sparrows and lilies; easy enough to denounce creatures and Creator alike on the testimony of liver-fluke or shrike. Less superficial study will bring insight into the contrast, an understanding of the significance of suffering and a readjustment of standards of value. We gain a certain largeness of view, an apprehension of the purpose of the whole, a sense of complete and co-ordinated achievement. Sometimes it seems as if the meaning only eluded us because of its colossal simplicity; more often the complexity of detail baffles and bewilders. And as we study, so more and more do the schemes for its interpretation engross and disappoint us. We must rationalise—and yet we cannot. Metaphor, symbol, myth—what delight in discerning and applying them, what awe when the reality still evades our limitations! Always the joy of the pioneer—yes, for the humblest enquirer—yet ever the added joy of discovering the horizon still remote; and both joys are full of tears. And for one seeker at least a plain conviction dawns and overspreads his sky that the problem of Creation and Redemption, of the Father and the Son is one and the same, and that in the Spirit, in our apprehension and service to the spiritual emerging in us, lies the clue to a solution. As we refine our mythologies in the fire of spiritual experience, as we make and remake the interpretations that the Spirit manifests to us, as we hold fast our human calling, which is to feel and think and act in conformity with the Spirit, He will guide us

into all truth. If we share to the full in the struggle that is ours, we shall share in our measure in the victory which is not ours, but God's. The records of Christian history and our own glimpses of spiritual experience embolden us so to believe.

It does not fall within the scope of this book to attempt any detailed account of the Scriptural and ecclesiastical teaching on the Holy Spirit. But in view of the conclusions of the two previous chapters it is well to examine briefly the question, so often and so variously answered, " What happened at Pentecost ? " [1] For the Christian the events of the first Whitsunday are naturally the classic and supreme instance of the emergence of the Spirit in the fellowship.

The tendency to separate the supernatural from the natural, to isolate the Apostolic age and the New Testament literature, and to dwell upon the miraculous accompaniments of the foundation of Christianity, has led us too often to regard Pentecost not only as supreme, but as unique and unparalleled. That it was not so regarded in the first century is clear alike from the Acts of the Apostles and from the Epistles of St. Paul. Pentecost was the first bestowal of a gift which is thereafter an abiding possession, manifested on many other occasions, though nowhere else so fully described. Similar experiences are recorded after the acquittal of St. Peter and St. John by the Sanhedrin,[2] in Samaria [3] and in the house of Cornelius ; [4] and in his first letter to the Corinthians St. Paul speaks of the characteristic phenomena of Pentecost as a regular feature of the Church's life.[5] We have already referred to the development of similar psychic manifestations by Montanus and of their rejection by the Catholic community.

[1] For a similar treatment of the subject cf. my essay in *Faith and Freedom*, pp. 230–1. The matter is fully and admirably discussed by Slattery, *The Light Within*, pp. 53–61.

[2] Acts iv. 31.

[3] Acts viii. 15–17.

[4] Acts x. 44.

[5] 1 Cor. xiv.

The history of revivals give evidence that convulsion, the appearance of lights, rapture and "speaking with tongues" have not been infrequent in later ages; and, indeed descriptions of spiritual and mystic experience are often, if not usually, couched in terms of the same kind. To be shaken with awe, to be surrounded with light, to hear and utter words ineffable —these are the only symbols by which human speech can translate the quality of man's communion with the Eternal. No other language is, in fact, available or adequate. Parallels can be found to it in almost any honest attempt to describe the "numinous." [1]

What has particularly caused us to regard the Pentecostal outpouring as not merely unique in degree, but as standing apart from all other manifestations is almost solely our misinterpretation of St. Luke's account of the "gift of tongues." Glossolalia as St. Paul describes it is obviously a wordless utterance. "He who speaks in a tongue does not speak to men, but to God, for no one hears, but in the Spirit he speaks mysteries; whereas he who prophesies" (or as we should say "preaches") "speaks to men edification, and comfort, and consolation. He who speaks in a tongue edifies himself: the preacher edifies the church. The prophet is greater than the speaker in a tongue, unless he also interpret. . . . If I pray in a tongue, my spirit prays, but my mind is barren. . . . If you bless in the Spirit, how shall the private member of the congregation say Amen, when he does not know what you are saying?" [2] Read in the light of this passage, we can see that the account in Acts does not warrant the explanation in the Book of Common Prayer "the gift of divers languages," and, closely scrutinised, it does not, even of itself, carry that meaning. Three things are plain from it: (1) that the utterances of the Apostles were not in Greek, for if so, though doubt-

[1] Cf. 1 Kings xix. 11, 12: wind, earthquake, fire, voice.
[2] 1 Cor. xiv. 1–17.

less most of their hearers would have understood, there would have been no ground for their surprise at hearing them speak in their own tongues; (2) those who understood the utterances did not comprise all the crowd, but apparently only those who shared the ecstasy; (3) " others mocking said, They are intoxicated with new wine," can only refer to speech such as St. Paul describes, speech meaningless to those out of sympathy with the speaker. What took place appears to be this. The Apostles spoke in glossolalia a wordless cry of praise. Those who were infected with their spiritual emotion became sensitive to their meaning by a process of thought-transference and could interpret it into their own native languages.[1] Others remained spiritually unmoved, and to them the utterance was mere babble.[2] We have seen that the effect of mystic experience is to heighten the sensibilities and create intuitive sympathy, so that those who share it become *en rapport* with one another. That in such moments men should lift up their voices in praise is natural enough; and it is not less natural that they should rise above the clumsy machinery of the intellect, which, because its symbols are those of time and space, is, as we should all admit, incapable of describing the eternal. Normally we try to translate our mysticism into the lower categories of mental life; and in doing so a vague approximation is all that we can reach. When a group share an " emergence of deity " and are lifted up together into the heavenlies, they transcend the levels

[1] Thouless, *Introduction to the Psychology of Religion*, p. 156, commenting on glossolalia writes: " The interpretation by bystanders is due to the gestures and emotional expression by which the sounds are accompanied." No doubt these assist; but a complete explanation in such terms does not cover the facts.

[2] Such diversity of effect is usual. After a vivid experience of common worship recently one man said to me, " I saw God, but I don't remember a word of the preacher's "; another said, " What a rotten sermon ! "

of intellectual expression. There are not, there cannot be, words to describe the ineffable; but the cries of rapture are not therefore meaningless to those whose personalities are perfectly at one under the influence of a common ecstasy.

Pentecost is therefore the supreme example of the religious experience, of the communion of the group-mind with God. The preparation for it had been the torture of the emotions, the intellectual agony, the moral upheaval of Calvary, followed by the love and joy and peace of Easter and the Ascension. And its consequences were the enormous enhancement of the sense of aesthetic, intellectual[1] and moral values, quickened sympathies so that they were all of one heart and one mind, clarified intuitions creating intellectual alertness, as when St. Peter reads the fraud of Ananias[2] or the ambition of Simon Magus,[3] and when the Apostles speak plainly and boldly before the Sanhedrin,[4] fervour for righteousness manifested in a dauntless fortitude and an unresting energy, and over and above these the peculiarly spiritual fruit already borne, but now enriched and ripened, the fruit of love and joy and peace. The Incarnation had glorified and transformed man's whole concept of Deity: after it his response to the Spirit was so enlarged that in comparison it seemed an utterly new thing; hence it is that we read, "There was not yet the Spirit; for Jesus was not yet glorified."[5] If "everything depends on how we envisage the God to whom we pray,"[6] the conviction that Jesus was "the image of the unseen"[7] was, and is, an inestimable gift. Yet to represent the Spirit as only and first manifested after the Incarnation

[1] It did not, so far as I can see, directly affect what I should call the machinery of the intellect, so as *e.g.* to dispense them from the necessity of learning foreign languages: it did supply the mental enlightenment of which intellectual expression is the current coin.

[2] Acts v. 3.

[3] Acts viii. 20–4.

[4] Acts iv. 13.

[5] John vii. 39.

[6] Streeter, *Reality*, p. 300.

[7] Col. i. 15.

is to do violence to the testimony of the Old Testament and to a consistent interpretation of the divine nature.

Lest such records of inspiration should be brushed aside as resting upon an old-world tale, or due to the reaction from overstrain, or as mere emotional excitement, we must urge in conclusion that their reality is testified to by multitudes of sane and intellectually critical people who at one time or another in their lives have witnessed an emergence of the Spirit in the fellowship. Few who have any sensitiveness, few whose religion is more than a bare formality, can be ignorant of the characteristic and unmistakable experience, when men and women share the conviction of the mystic Presence, and discover together their unity and dependence upon a power not their own. To act as the spokesman of such a group is to find oneself expressing thoughts quite certainly not self-engendered, thoughts common to the whole company, yet beyond the reach of any one member of it when alone; and expressing them with an utter lack of self-consciousness, or of any desire to create an effect, or of any effort save that of keeping contact with God and the group. What was said was a gift, freely bestowed, freely received. For a time the bonds of fear and pride were loosed; the meaning of what one had groped to understand was made plain; the horizon gave up its secret: one had realised God and been rapt in company into communion with Him. One who has in the past been utterly sceptical, who has honestly striven to test the grounds of his belief, and who has been convinced "in spite of himself," may perhaps be forgiven what else would be arrogance if he claims that among all the facts of life this seems to him far the most certain and compelling. Short of denying his own sanity, he cannot gainsay its validity. It is emphatically not due to the speaker's power of suggestion: that is real enough and we know it on other occasions; on these, instead of exerting control, he is himself controlled. It is not due to mass-

emotion; the power manifested is wholly free from excitement and passion and the characteristic "pull" of (say) a political audience: the control does not come from his hearers. Rather speaker and audience alike are gripped by an influence external to, though operating through, them all. They not only realise the experience of the corporate mind, but in that corporate mind share the mystic's contact with the Eternal. The *esprit de corps* of the team and the saint's communion with God are here jointly present; and the result is the unity of the Spirit, and the manifesting of power strong and sane and sweet.

To write of such a theme except in the conventional language of devotion is to invite a charge of presumption or of an indecent lack of reticence. It is not an easy nor a light thing to set out in common speech the deeps of the Spirit. And few Christians have less right to do so than myself. But to keep silent would be to omit what is a vital part of any religious life, and a common possession of many thousands of ordinary folks. Let the whole subject be examined as critically as may be: if we are mistaken, our error can be demonstrated; if we misinterpret, our critics can help us to wiser understanding. But that a scientific study of reality should neglect or refuse to discuss such matters, would be disastrous. They are a part, to many of us the supreme part, of man's experience; and as such their consideration is inevitable for all students of Nature or of God. And for those who accept them they are plainly the crown of human endeavour, the key to a right understanding and use of life, the evidence of the nature and energy of the universe. For here is the supreme unveiling of that which has before been dimly discerned, of a love in which we can attain our completeness, of an eternal reality to which the travail of the ages is a preparation, of the one God, whom as Father, Son and Spirit we would worship, of the heaven which is our home.

Note on Alcoholic and Ecstatic Mysticism

An obvious objection to the claim of cosmic emotion to be the highest element of human achievement and the living heart of religion will rise in many minds. A memory of my own will best express it. Eighteen years ago, when I had been studying and thinking over the interpretation of the divinity of Jesus Christ, after a long and rather futile attempt to reach an intelligible position, suddenly the conviction emerged vivid and clear that His union with God must be explained on the analogy of my own sense of the eternal. I had lately had several experiences of a mystic character: rapture is too grand a word for them; but they were for me compelling proof of union with the eternal. Remembering these, I saw in a flash that such union as an abiding fact was possibly the significance of Incarnation. I sat down there and then to develop it in detail, but was brought up short by the recollection that such mystic states were, after all, hard to separate from the effects of a cigar and a mixed drink. It had never occurred to me previously that there could be any connection between the ecstasy of the mystic and the exaltation of the partially intoxicated; and the revulsion of feeling dispelled for some years the belief that mysticism was a phenomenon of much importance.

Similarly under anaesthetics I have on occasion had a vivid sense of transcending the time-space condition. Coming round after gas I have found myself murmuring, "I've solved the riddle. If only I can fix it in formulated thought, I shall be able to hold the relation of time to eternity fast; I must hold it a moment longer." And then the dentist said, "All right: spit it out." And I descended angrily to earth.

Readers of William James [1] will remember how he

[1] *Varieties of Religious Experience*, pp. 386–92.

relates such experiences to mysticism; and will feel that they are not without influence upon his own rather unfavourable attitude towards it. Certainly they cannot be set aside by any student of the subject. Indeed, the whole group of phenomena covering the hypnoidal states and ranging from the mildest day-dream to the wildest derangement, and attained by drugs, by hypnotism or by Yoga are often classed together as mystic; and the association of them with the experience of the eternal with which we have been dealing has been used to throw discredit upon the reality of all communion with God. Even in so competent and on the whole so favourable an account as that given by Prof. Pratt,[1] the mysticism that I believe to be man's supreme experience, and which he calls "mild," is regarded as one in kind with much that is obviously pathological and artificially produced. And critics like Murisier [2] and Binet-Sanglé [3] have not hesitated to treat the whole subject as a proof of degeneracy and to set down even Jesus as a paranoiac.

Now it is plain that most men crave for unification and peace, for escape from the world of mundane affairs, for new experience and a sense of satisfaction. This can be obtained by what Murisier calls simplification, by the annulling of the restraints imposed by the higher centres of the brain, by narrowing the field of consciousness, by releasing the instincts normally held under control, and giving free rein to imagination and desire. This is the effect of alcohol and is what, to some extent, happens in hypnosis. It is also characteristic of a certain type of ecstatic religion. The poor unstable soul strips itself of impulse, thought and feeling, until one simple idea possesses it, and falling into a state of trance it finds peace and unity by elimina-

[1] *The Religious Consciousness*, pp. 337–479.

[2] *Les Maladies du Sentiment Religieux.*

[3] *La Folie de Jesus*, of which Pratt (*l.c.*, p. 461) remarks that the author "is himself not altogether free from paranoia."

tion.[1] Self-absorption, intense contemplation, passivity induced by concentration and the repetition of formulae abstract the consciousness from contact with its surroundings and produce unification by subtraction and the devitalising of the personality. Such experiences are always dangerous, and if sought as an end in themselves are definitely to be discouraged. They are opening the door to delusions and to a pure subjectivism.

As such, most students of religious mysticism condemn them;[2] and very many of the ecstatics who are often regarded as mystic experts are plainly hysterical, unbalanced and degenerate. Ecstasy of the trance type is never regarded by competent religious thinkers as an end in itself, or as a particularly high form of experience. And those who practise it are warned to discipline themselves by strict exercises and to concentrate upon the effort of prayer rather than upon the ease of dreaming.

The experience of the eternal with which this book is concerned, the practice of the presence of God, the emergence of deity, is totally distinct from such abnormalities. It is unification by synthesis, the attainment of a new relationship by a fully integrated personality. "All the hundred voices of human desire are here brought to unison."[3] The field of consciousness is not narrowed, but enlarged; the senses are not inhibited, but sublimated; the intuitions are clarified and harmonised; the will is quickened and fortified. Whereas the ecstatic tends to become self-engrossed, passive, unsocial, the votary of the mystic life is energised with an abounding vitality. Of such communion with God

[1] Cf. Pratt, *l.c.*, p. 460.

[2] *E.g.* Mrs. E. Herman, *The Meaning and Value of Mysticism*, pp. 130–8. For a more sympathetic view, von Hügel, *The Mystical Element in Religion*, Vol. II, pp. 58–9. For a careful survey of the distinction between morbid and healthy ecstacy, cf. Underhill, *Mysticism*, pp. 430–3.

[3] Hocking, *The Meaning of God in Human Experience*, p. 578.

Jesus is the perfect example. Perspective and proportion, sanity and stability, integration and universality—these are the qualities of the true mystic. Indeed, the test by which true and false can be discriminated is obvious enough.[1] Do such experiences of unification proceed from and produce aesthetic, intellectual and moral expansion? We have claimed that what can alone be called religious mysticism emerges from an aspiration towards real values, and results in a purifying and enrichment of emotion, a clarifying of perception, and an increase in the power to befriend. Where the enjoyment of ecstasy is divorced from these qualities and sought by lower methods, it should be condemned as a prostitution of man's highest gift. We may sympathise deeply with the drunkard or the Yogi in their craving for release from a dull and difficult world: their ecstasies are none the less sterile, " Loveless, joyless, unendeared, Casual fruition," [2] a pitiful attempt to win by false methods the Crown which cannot be gained but by the Cross.

[1] " All the mystics agree with Malaval in finding the test of a true ecstasy in its inward grace, its after-value " (Underhill, *Mysticism*, p. 431).

[2] *Paradise Lost*, IV, p. 766–7.

CHAPTER VIII

THE SPIRIT AND THE CHURCH

If there is any validity in the account of evolution as culminating in the emergence of the spiritual, and of human experience as consummated in communion, we are brought face to face with an issue fundamental for practical religion. If God be essentially eternal, if He exists and is apprehended outside the frame of space and time in which we move and think, how can we without debasing our perception of Him translate it into intelligible concepts?[1] Have we indeed any right to attempt the task? And if so, can it be done save by metaphor and myth, by approximations which often appear to be the more influential as they become remote from reality?

Here is the dilemma—the ancient antithesis of the one and the many reappearing in scarcely altered form. We cannot cut the knot, as the Eastern peoples have cut it, by denying the validity of the phenomenal world and withdrawing from it into contemplative passivity. Nor can we take the opposite course, and repudiate as illusory our glimpses of eternity. For we are faced with two facts of experience: on the one hand the natural order, whose reality (in some sense) we cannot escape and remain alive within it, and on the other the experience of an eternal order whose

[1] Cf. James, *Varieties of Religious Experience*, p. 431: "I do believe that feeling is the deeper source of religion and that philosophic and theological formulas are necessary products, like translations of a text into another tongue"—which is only open to criticism in its isolating of feeling from thought and will, that is, from the whole self.

existence cannot be described in categories of time and space, but remains, for those who have apprehended it, among the certainties. And the contrast between the two appears on occasion as an actual conflict. Confront me, for example, with the problem of evil: all the mystic in me cries out at once, "The evil is null, is nought, is silence implying sound"; and all the historian and man of action realises the disastrous consequences of such a confession and its absurdity in face of the facts of corporate and personal sin. In the spirit I can confess the unity and goodness of reality; in the body I am tempted to plunge into a frank dualism; in the mind I wrestle to reconcile the opposites, and with little success.

We cannot cut the knot by negating our experience of process; for it is in and through phenomena that we attain our communion with God, and as we study their evolution we can trace, however inadequately, signs of His activity and manifestations of His nature. To reject them is to cut ourselves off from the testing of reality by action and fellowship, to isolate ourselves in a realm of subjective emotion, to become passive ourselves at the expense of others' labour. But if that way is barred to us, we must be on our guard not to select its opposite. It is easy enough to immerse ourselves in the flux of affairs, to take at second-hand a comforting mythology and to set up its idols as gods, to live in a world measurable by the reed of a man, a small and cosy prison where amusements are provided free and meals come regularly. Between contemplation and superstition how is the religious to find a resting-place?

It is the characteristic of Christianity that from the first its followers have accepted in belief and in practice both sides of the antithesis. Such acceptance is confessed in their doctrine of Incarnation and displayed in their pursuit of the contemplative life, as well as of moral, rational and aesthetic value. Their earliest

records display their Master as devoting the first and longest period of His Ministry to educating His disciples to apprehend the reality of God's reign in the common things of every day, in order that they might recognise that same reality in the parable of Himself and be given seizin of it in the ritual of the common meal. To Him clearly the one God was everywhere manifested—in creation, in personality, in the fellowship, in things sacred and secular. St. Paul when he called the Christ "God's mystery" [1] may have borrowed the term from Greece: the idea was Christian through and through; for here was the eternal and all-pervading mirrored in a tale whereby the initiate could read in his own tongue God's hidden lore. St. John, substituting Word for mystery, expressly associates that Word in Christ with the same Word in the world and in the lives of men. Here was not an irruption of deity into an alien and elsewhere meaningless universe, not a miracle, if by that is meant something in conflict with the natural order—that is not the teaching of Jesus or of His great disciples. Here is rather the climax of an age-old process, the interpretation of a purpose else obscure, the manifestation of God ever-present, but now uniquely revealed. At last man held the master-key and could open all the doors before which he had fumbled so long. At last there was light for him to see life steadily and see it whole. From the old assortment of unco-ordinated "stuff" had emerged, with startling but appropriate novelty, the "substance" of God. That at least is the conviction and witness of the New Testament.

But to hold fast the unity of Creator and Redeemer, of Nature and Grace, of God the Eternal and of God manifested in time and space, in spite of the different modes and degrees of our apprehension of Him, is a task to which Christians have by no means always been faithful. The Gnostic might try to winnow out

[1] Col. ii. 2.

the spiritual from the physical: the result was merely an abandonment of the natural order as either antagonistic or indifferent. To his opponents his mysticism was only moonshine and morbidity; and, reacting against him, they were led to neglect the experience of which his speculations were the inadequate raiment, and to reduce religion to a matter of myth, cultus and organisation, identifying means with ends and the outward with the inward. Nothing is easier than to collect from the history of the Church a multitude of illustrations of the growth of externalism, to present its development as an unbroken record of concessions to the degrading influences which substituted orthodoxy for truth, mythology for history, superstition for mystery, and the tradition of the elders for the liberty of grace. No student of events can dispute the occasional justice of such a verdict, or deny that between the religion of Jesus and the religion of the churches there is sometimes a horrifying contrast. But the dilemma which is involved for all who would "sing of Time and Eternity" is so hard to resolve that criticism should take warning and be generous and sympathetic. Religion is here facing the fundamental problem; only those who have never themselves wrestled with it will speak dogmatically or superciliously of the failures of others. And, in fact, if Christians have made many and grave betrayals, the Church has not at any time been left without witness, and before the fatal gift of Constantine had distracted her vision by the promise of easy triumph, she had, indeed, seen an heroic attempt to give expression to a Christian philosophy by which God should be revealed as the source alike of creation and of redemption. When the great scholars and mystics of Alexandria brought their memories of Platonism to the interpretation of Christ, they undertook a task in the true succession of the Fourth Evangelist, a task to which the "New Reformation" is now returning. Clement and Origen

have a fascination for the modern student which is not hard to explain. Hampered as they were by a faulty method of biblical exegesis, by the tendency to asceticism, and by the development of ecclesiastical formulae and organisation, they reveal, amid much that is only of archaeological and often of curious interest, a startling insight into the scope and grandeur of their theme, a breadth of knowledge and a fearlessness of speculation wholly unlike that of their contemporaries, and at times an astonishing modernity both of outlook and of expression. And they are in no doubt as to the purpose of their work. It is to see history, and indeed the whole natural order, as the manifestation in varying fulness of the eternal, to trace the evolution of life as the preparation for the " coming of the sons of God," to bring creation, incarnation and inspiration within the categories of a single process, to see Christ and the universe not as antagonistic, but as mutually interpretative, to train the mind of the scientist and the spirit of the believer to sing in harmony the same hymn of praise. If Clement is often muddle-headed and Origen does not always escape the dangers of intellectualism, we have only to compare their work with that of their successors to realise its evident greatness. Institutional religion naturally found them hard to assimilate : the passion for a tidy scheme of salvation drawn up on precise and narrow lines, and for a formulated and final creed to serve the purposes of discipline and uniformity, was incompatible with their outlook and with much of its results : at the coming of Jerome and the papacy Clement became an object of suspicion, Origen of anathema. Yet their work and something of their spirit have lived on and borne much fruit; at crucial epochs in the Church's varied history their voices have not failed to be heard; and the present age is witnessing their vindication as pioneers in the central business of theology, pioneers whose lead has been too long forgotten.

The practical problem, to which the work of the Christian Platonists gave rise, was, of course, a difficult and an abiding one. It was excellent that certain scholars and mystics should pursue the path of free enquiry and speculation in their effort to define the infinite. They could adopt a frankly double standard —for the " Gnostic " the way of illumination, of moral, intellectual and aesthetic discipline qualifying him for the experience of communion with the eternal; and for the mass of ordinary believers the rites and doctrines and activities of the Church, which, if only shadows, were suited to the needs of the cave-dwellers, whose " minds at first must be spoon-fed with truth." A few choice and lonely experts could be left at liberty to travel the mystic way, so long as they remained obscure and uninfluential. But if, as was the case with Origen, they achieved an authority vastly greater than that of the episcopate, if they revived the old status of the prophets, if they gathered numbers of followers, and if every Christian, qualified or unqualified, made a claim to liberty of prophesying, how then could administration, discipline, orthodoxy, tests and all the valuable apparatus of institutional religion be preserved? It is unjust to write down the priest as zealous solely for his own prestige and order; he had, and has, a far stronger case than that.[1] For he had to deal with the masses, with charcoal-burners and other simple and devoted souls for whom speculation was mere darkening of counsel, for whom myth and miracle were of the essence of religion, who needed plain and dogmatic teaching on definite, not to say crude, lines, and whose salvation was as important as that of any other child of God. Furthermore, there were great issues to face, grave responsibilities to carry; and these demanded a united Church which knew its

[1] It has seldom been more fairly stated than by Bernard Shaw, *St. Joan*, pp. 75–8 (Scene VI, The Inquisitor and Cauchon).

own mind. Obvious wrongs could be redressed, world-wide evangelism realised, the whole life of man raised to a richer level, if Christians could present an appearance of ordered unanimity to the world. Origen might be trusted, even if his behaviour was often exasperating to his diocesan. But when Paul of Samosata or Arius claimed a similar right to interpret and teach his version of the faith, the position had to be reconsidered. Liberty would be a cloak for licence unless the Church, like Cromwell and his Independents, could devise a system of Triers. Christ gave one test, that of fruits; but the fruit of the Spirit can hardly be made a subject for a Court of Enquiry or set out in a series of anathemas; time alone will discover its quality, and meanwhile uncertainty spreads. Acceptance of a creed and conformity with a cultus are easy and effective substitutes. It is small wonder that the Council of Nicea, harassed and cajoled by the urgency of the Emperor and eager, from far nobler motives, to save their flocks from peril of error, did not hesitate. They would draw up a statement of the " mystery " which should leave as large a measure of freedom to the Gnostic as was compatible with excluding obvious error and safeguarding the faith of the simple. When, after half a century of controversy, their decision had been vindicated, it was natural that the principle of authority should be strengthened and that both the Creed and the system which had produced it should appear irreformable and almost inerrant. And the secular arm could be relied upon to maintain them.

In these days, when freedom of enquiry has become the rule, any journalist can sneer at Athanasius or remind us of the tragedy of Galileo. But those in whose souls burns a passion for practical reform and who see the helplessness of unorganised religion and the bewilderment of simple folk, will wonder whether, after all, there is not something to be said for standardised formularies and the power that comes from unity.

Athanasius, if not an Origen, was assuredly no Blougram; and the Creed, if only an approximation, is, or was in its original meaning, as noble an attempt as has ever been made to translate the eternal into human speech. If Plato had to fall back upon myths, if Christ Himself gave us truth embodied in a tale or a sacrament, can we, any of us, do otherwise? And if tales and sacraments, then what more adequate than those hallowed by centuries of Christian usage? There are few guarantees more impressive than that of the *communis sensus fidelium:* youth may start by echoing Julian of Eclanum's contemptuous "nil prodest multitudo insipientium"; but when time and again we have discovered the novelties of to-day in the formularies of antiquity, the protest seems pert and callow. And reverence takes the place of rebellion.

Yet admiration for the intellectual achievements and administrative efficiency of the Church of the third and fourth centuries must not be allowed to obscure the fact that the development of creed and cultus accompanied, if it did not promote, a great relapse from the "way" of the earliest age. In the apostolic days and on into the middle of the next century the faith was interpreted in a life of astonishing psychic and spiritual power, a life in which freedom from fear drew the sting from suffering and death, a life radiant with love of God and man, with gaiety and peace, confidence and comradeship. The Spirit of holiness, the Spirit of God and of His Christ, was embodied not in a form of doctrine and an ecclesiastical system, but in the full personalities of the fellowship of believers. Behind the scarred temperament and restless intellect of St. Paul is a glow of joy, an assurance and a hope, which burst out through the crust of his controversies and tribulations. A similar exaltation of soul pervades the Johannine literature. Ignatius, for all his belief in the value of external unity, has the same passion, the same reckless trust in God. The Epistle to Diog-

netus which, more plainly than any other non-canonical book, displays the atmosphere of the New Testament, gives the same vivid picture of an abounding vitality, of the true mystic experience which is everywhere at home in the world because always living eternally. Even the *Shepherd of Hermas*, which students of dogma and ecclesiasticism find almost meaningless, has about it the same spontaneity, confidence and simplicity. Such men move to the music of the spheres, unfettered, lavish of gesture, childlike, unafraid: they have all the *joie de vivre* of the pagan, without his animalism or his lapses into despair. They can laugh at death; then, as now, they will be with the Lord. They can be prodigal of life; for love has cast out fear. They can bear witness to their faith without affectation; for it is the very substance of their being and expresses itself inevitably in thought and deed as readily as speech. That they have left few books, apart from the New Testament, and that their quality has often been misunderstood, is due partly to the neglect of their successors, who valued the early writings only as a quarry for hieratic maxims and illustrations of doctrine, partly because they were themselves concerned with life rather than literature, partly because few rich or leisured, wise or scholarly were among them. But in their art, preserved in the vast storehouses of the catacombs,[1] we can see the emphasis of their faith, revealed not in the works which later ages have selected as satisfactory or in the masterpieces of abnormal genius, but in the simple symbols of popular devotion. Here is an interpretation of Christianity from which later ecclesiastical imagery is singularly absent. The instruments of terror, hell and purgatory,

[1] It is a sad comment upon the contrast here noted that scholars have ransacked the catacombs to find support for the tradition that St. Peter was the first Pope, and have not seen that their every detail utters a challenge to the hierarchical conception of the Christian religion.

devils and skeletons, cross and scourge and crown of thorns, are not merely wanting: they are unthinkable in view of what is present. Here are flowers and birds and lambs and the pageantry of a festival of spring-time; here is the Lord, neither as the Crucified nor, until the fourth century, as the Judge, but as the Good Shepherd, or even as Orpheus drawing all the world by His music; here are inscriptions of birthday joy, of tender trust and unbroken companionship, of mirth and security and an immortal youth; here is the proper adornment of the home of the children of God, in whose souls there is neither fear nor guile, bitterness nor doubt, from whose eyes all tears are wiped away; here is the fulness of the Spirit, the evidence of what is described in the early chapters of the Acts, manifesting in terms of life the shared experience of eternity.[1] "I have always wondered," said an Indian Christian to me after his visit to Rome, "at the secret of the hold of Christianity upon Europe. Now I have found it. You are living on the relics of the strength and sufferings of the early days."

For grim as is the shadow that steals over that sunlit world, terrible as is the travesty that ecclesiasticism substitutes for religion, beneath the tinsel and pomp of mediaevalism and the gloom and rigidity of Protestantism, lies still something of that ancient art of living Christianly. The joy of fellowship is corrupted into the lust for power over souls; the trust in truth gives place to quarrelling over orthodoxy; the family meal of the Lord's Table takes on the pageantry and magic of the Mass; the servant of all assumes a triple crown; hell is preached instead of heaven. But despite the feuds of schools and sees, through the long ages of enslavement to the Catholic hierarchy and of the divisive individualism of the Protestant reaction, there remains something of the love and joy and peace to

[1] Cf. Dearmer, *The Necessity of Art*, pp. 38–42.

bear its fruit in the splendours of St. Francis or the early Quakers, and to testify that Christ is more human, more divine than His official representatives, that the eternal Spirit manifested in Him cannot be barred out by creeds nor confined by ceremonies nor trafficked in by priests, but lives native in the spirits of His children. It is our business to understand and increase the life thus engendered and revealed, recognising such value as we can find in the systems developed out of it, rather than rejecting blindly the whole results of a process which, however regrettable, does not destroy the worth of that from which it sprang. Creeds and ceremonies, discipline and hierarchy, all the apparatus of organisation were developed naturally and in the interests of efficiency. They are necessary steps in the evolution of the " way " from the simple to the complex, as it adjusts itself to a wider environment and feels the need of elaboration of structure and differentiation of function. As such they should express the inward life, as the senses and limbs serve the self of man. That they have grown inelastic, distorted, even corrupt is reason for reform, drastic and purgative, but for reform, not for mere return to a more primitive level of being. We have paid the penalty, a great and ghastly price, for growth and expansion and the attainment of fresh responsibilities and powers. We have to discover how the instruments created by past necessities and misused by ambition and fear can be employed in the service of the Spirit for whom they were originally devised.

The whole process of the growth of institutional religion, as of any specialised mechanism, is closely analogous to what can be noted throughout the story of evolution. The organism under particular stress develops structure or habits adapted to meet the need. The Crustacean with his coat of mail, the Spider with his mastery of geometry, the Bittern with his routine of self-defence or concealment illustrate at once the value

and the danger of complexity of function. Humanity, with its enlarged power of conscious control and its acquisition of forethought, ought to be able to keep means and ends in perspective, to safeguard itself against the tyranny of machinery, and to avoid the penalty of permanent limitation which falls upon those who, having produced a system of structure or habit, are thereafter imprisoned within it. In the Church we have a time-honoured and well-attested organisation. If those who employ it are alive to the peril of formalism and inelasticity, they ought to be able to keep it fresh and plastic and vital, conserving the true values, ministering to the diverse needs, adaptable to the new opportunities of the animating Spirit.

So long as Catholic faith and practice are interpreted by those who have themselves a sense of the eternal, and can set dogma and cultus in their true proportion, all will be well. The ecclesiastic who has seen God will be humble and tolerant, quick to discriminate between the seeker and the charlatan, slow to quench in the former the spark of his inconvenient originality. He will know the difference between the outward and visible and the inward and spiritual, and will admit that God speaks by His prophets "at sundry times and in divers manners," and that inevitably "to interpret experience is to change it." [1] He will administer creeds and systems as at best approximate hypotheses, to be held like any other law subject to perpetual verification. He will be conscious of the vast distinction between God as He really is and God as His human creatures categorise Him. Finally, he will look at life as a whole, life in its manifold capacity to embody value, and will claim as of God, and therefore as Christian, whoever and whatever expresses goodness or truth or beauty.

The trouble arises when authority is exercised by

[1] Jacks, *The Alchemy of Thought*, p. 108.

the earth-bound, for whom God is just one factor in the world-process, intervening occasionally in order to prove His independence, but operating normally along fixed channels and in accordance with covenanted regulations. Armed with an infallible formula for every occasion, they imprison the infinite within the terms of a conciliar decision and reduce the mystery of godliness to the observance of a code of rules, so that eternal life becomes the inalienable right of those who accept the one and comply with the other. There is a grim phrase applied by Robert Browning to another sort of trafficker with souls; such Churchmen too often display :—

> " That odious smile of boundless self-conceit
> Which seems to take possession of the world
> And make of God a tame confederate
> Purveyor to their appetites. You know ! "

It is hard to write with charity of those who patronise deity, and in whom the undying Pharisee still lives. *Corruptio optimi pessima :* the journey from the one to the other is not long, and all of us whose concern is with the work of the priest are tempted to take it. It is so easy to forget that dogma means only opinion; that the laws of the Church are generalised hypotheses dependent for their truth upon the spirituality, the character and ability of the councils or scholars who formulated them; that to identify the outward with the inward is to destroy the nature of a sacrament and fall into idolatry; that there are many means, and of very varying values, but only one end, life in God; that the Quaker who has neither creed nor sacrament displays the fruit of the Spirit in abundance. Yet there is good apostolic precedent for refusing to quench the Spirit and for insisting upon proving all things. Indeed St. Paul faced the whole problem of infallibility or antinomianism, and resolutely refused to accept either alternative. Can we

try to follow his example? To discuss this will be to recapitulate our conclusions and to disclose their practical effects.

It has been urged that man's spiritual life is the emergence in him of a new level of experience, a new integration of the aesthetic, intellectual and moral elements in his nature. As such it comes as a gift characterised by a sense of sudden joy and illumination and power—a joy of which awe is perhaps the right description, an illumination which carries conviction of its truth even if it cannot be precisely rationalised, a power which expresses itself in love and service to his fellows. In it the whole personality is involved, both in its inward completeness and its outward relationships. It cannot be adequately interpreted either as a revelation of satisfying beauty, or as a solution of intellectual difficulties, or as a realisation of moral perfection, though all these are, or should be, contained in it. It carries with it not only a unifying of all the constituents of the self, but a conviction that the self is at one with the one eternal reality in which all else consists and of which each part is in its degree a manifestation. Though essentially outside the conditions of time and space, spiritual life is for us necessarily associated with, and conditioned by, events within that framework; its fulness will depend upon the measure of our ability to receive it, upon the degree of our appreciation of beauty, truth and goodness; and the occasion of its attainment, though on a superficial view often casual and always unexpected, will under careful analysis reveal circumstances upon which it is contingent. These circumstances appear to be twofold: there is the general preparation by which the personality is brought into poise and expectancy, and the immediate event which, so to speak, "fires the train" and preludes the ecstasy. The former may be unconscious, an unrecognised process of purification culminating in a feeling of restless-

ness and sensibility; or it may be deliberate, the adoption of a discipline suggested by masters of the mystic way. The latter is often trivial, and apparently irrelevant :—

> " There's a sunset touch,
> A fancy from a flower-bell, someone's death,
> A chorus-ending from Euripides "; [1]

but it remains indelibly fixed in the memory and recurs at will with a vivid realism that has a quality all its own. The bush is ablaze with God; the glory veils the temple; Jesus is transfigured; the Apostles are all with one accord in one place, and on each falls the flame; Saul is in the way, and around him shines a light from heaven. We can trace in some measure the stages by which the fuel has been piled up upon the altar; the fire is given of God—we can say no more. It is itself its own testimony.

Yet if we are to " prove all things and hold fast that which is good," its testimony must somehow be tested. It is not enough to say, " Thus it was: I saw and bear witness " : madmen have said the same. The gift must be brought into the categories of process, and lived out in time and space. The proof of it will come in its fruit, in the enrichment of the personality by inward peace and outward fellowship, in the quickening of response to those values by which it was made possible. As we thrill to new perception of beauty, and gain a more intelligible and coherent philosophy, and achieve a fuller freedom from self-centredness, as our whole personalities develop a larger integration and more ordered unity, we can appreciate the reality and limitations of our experience of the Spirit.

But there is more in it than this. No spiritual gift is of merely private interpretation; [2] and we may not

[1] *Bishop Blougram's Apology.* [2] 2 Pet. i. 20.

test it solely by its effects upon ourselves. Few points in the method of St. Paul are more significant than his refusal to make the welfare of the individual the only criterion for the valuation of guidance. It is not enough to apply experience to our own case or to work out its implications by the partial light of our own aesthetic, rational and moral judgment. We have further to ask, "Does this influence, which may be in itself lawful for me, make for the true welfare of the fellowship?" "Seek that ye may excel to the edifying of the Church,"[1] said the Apostle; and his own life was controlled by that motive. The Spirit will make us more ready to share and serve, more useful and more lovable in the community, as He initiates us into wider relationships and closer sympathy with all that is. Manifested as an apprehension of God, the impact will be displayed and can be gauged in the consequent attitude with which we approach our fellows. It is a pure travesty of the spiritual if in it we glow with love for God and fail to "love our brother also."[2] The separation of the Godward from the manward motion, such as is seen in certain forms of ascetic mysticism, is an indication which should arouse in us doubts as to the genuineness of the gift. Anatole France's portrait of the spiritual egoist in *Thaïs*, for all its cruelty, is wholesome medicine: envy, hatred, malice and all uncharitableness are not unknown, have even been said to abound, among church-workers and communicants. If our vision of the holy only serves to intensify for us the defects of others, we have indeed mistaken our repressed egoism for God: not for nothing are humility and the refusal to judge fundamental conditions of discipleship.

Over this further test arise the most acute perplexities of conduct. If our concepts of God and of human welfare were fashioned on the same standards,

[1] 1 Cor. xiv. 12. [2] 1 John iv. 21.

there would be no difficulty : the two would be inevitably identical. But in fact, because into our views of mundane affairs we import unregenerate instincts and unchristianised ideals, it is often almost impossible to fulfil our aspirations in one direction without outraging our sentiments in the other. St. Paul, assured of his own liberty to eat flesh, could easily sacrifice his legitimate tastes for the sake of a weaker brother's scruples.[1] Substitute the case of war for that of diet, and the issue is obviously one on which there is wide and often acute divergence; and all of us know the difficulty of reconciling the claims of truth and of charity. The conflict of loyalties for men living in a mixed society, and themselves actuated by mixed motives, raises problems which we cannot here discuss in detail, but which on occasion seem, whatever solution we adopt, to demand a sacrifice of principle in one direction or another. The manufacturer striving to discharge his obligations to his shareholders, his employees and the consumers of his goods; the worker torn by a conflict of loyalties between his family, his mates and his government; the parson called to interpret his vision of God in terms which shall satisfy his own sincerity and meet the needs of a flock avid for miracle or convinced of verbal inspiration; the father whose boy has a passion for the army and who is tempted to wish him in his grave rather than at Sandhurst—such cases are within the knowledge of us all, and no hard-and-fast rule of conduct will avail. The whole art of living lies here; and in it there is no substitute for God. Only on the highest level can we deal with it.

To speak so is to point the way to an answer. The issue presents itself as a choice between alternate lines of conduct. It is our business to wrestle with it, giving full weight, if we can, to the emotional, intellectual and moral arguments for and against each

[1] Rom. xiv. 21; 1 Cor. viii. 13.

possible course, and striving to see the whole dispassionately. Honestly treated, such an analysis will reveal a conflict of desires within the self, the existence of differing standards and disharmonious motives. The problem becomes a matter of bringing our own individuality to a uniform tone, of cleansing our hearts, clarifying our minds, intensifying our sense of value. But even so unification cannot be achieved piecemeal: we can weigh and balance and adjust, handling the various elements as factors in an equation; and as a first step to a solution, as the means of providing material for a verdict, such a process of investigation is our manifest duty. If we leave it there, we reach a compromise possibly wise, certainly unsatisfying, at most the best we can do under the circumstances. Happily experience shows that this is not all. Those who have honestly struggled, those who have realised the defects of their own make-up, the loose ends of incongruous material in the raw fabric of their lives, will have also experienced the abrupt emergence of order out of chaos, conviction out of perplexity. A moment ago there was a jumble of disconnected fragments, without coherence or pattern, a meaningless patchwork, becoming more involved as one strove to master the outline and structure of its constituent elements. Now all is clear; the essential features of the design stand out in perfect symmetry; a new and amazing synthesis has been revealed in a flash; action in accordance with it becomes inevitable and can only be denied at the cost of a deliberate betrayal; and such action, before old limitations can be revived, must be taken where guidance is clear.

A trivial parallel will serve to illustrate the suddenness of the clarification. Look through a stereoscope, and at first the two images are seen overlapping and blurring one another: one fixes attention first upon one, then upon the other, conscious that the result is unsatisfactory: suddenly the two come together, and

the picture stands out solid and complete. Sometimes a turn of the focussing screw has been necessary to bring the two into a correct position for vision; sometimes no change in the object was required; in both cases it is the correlation of one's two eyes that is the decisive factor; the adjustment by the brain of the two images, an adjustment given without conscious effort, yields the result.

An example from recent history—the attitude of the bishops towards reunion at Lambeth and afterwards—will be more appropriate. To the Conference was brought a problem complicated by wide differences of desire, memories of old controversies, obligations to party loyalties, incompatible theories of what constitutes a church—in a word, all the material for a long and inconclusive debate. No doubt discussion was protracted and conflict acute; no doubt an unsatisfying compromise was at one time all that seemed practicable.[1] But the members had in common a growing trust in one another, a sense of the gravity of the occasion, and a conviction of the possibility of agreement.[2] Suddenly (and we have the testimony of those present to its advent) the issue cleared; rivals were swept into agreement; the decision came compellingly in a vision of the Great Church and a resolve to make the dream come true. Few who read the Appeal will doubt that here is the work of men who have won their way to unity one with another and have been gripped by a Spirit larger than their own, a Spirit at whose impact old habits of thought lose their power and the fetters of traditional and individual prejudice are loosed. What matter if the result is a

[1] Cf. *Lambeth and Reunion*, by the Bishops of Peterborough, Zanzibar and Hereford, p. 48.

[2] It is, I believe, sound psychology that has led the Quakers to refuse to vote on issues submitted to their society: at least it prohibits the belief that any section has a monopoly of truth, and ensures a desire for discovery, not for a party triumph.

sacrifice of what once was called principle? What matter if it involved its authors in charges of inconsistency? Pentecost leaves little room for self-regard, for prudence and policy: those who experienced it acted, and could not but act, be the consequences what they might. "The wind had been blowing, a rushing mighty wind." [1] Lambeth 1920 had made its contribution under that impulse. What followed is the proof, the tragic proof, of the reality of the gift. If while yet the presence of the Spirit was clear the new emergent vision had been put into practice by some decisive act, all might have been well. Instead, there followed a long period of discussion, of party meetings, of complaints and acclamations. The Appeal tore up many a treasured prejudice, contradicted many a precedent, demanded a generosity of temper equal to that of the great days of its composition. Among its authors there had been disagreement; the old grounds of suspicion were still there; could it be that this new unity was of God? If so, plainly past attitudes would have to be changed, earlier dogmas restated, cherished rules broken, valued privileges abjured. A first step had been taken, was it wise to attempt to follow it up? We need not recall the history: it is writ plain for all to read: nor need we judge men who, having seen a vision, were not able to live up to it. Colours seen in the daylight of the Spirit do not look the same when reviewed under the candles of our individuality.

But if we are to recover power for the Church, if the work of the Spirit is to have free course in us, our need is plain. It is to explore, not merely in theory, but in practice, the realisation of our calling as the body of Christ; to be to His eternal Spirit precisely what His manhood was in the days of His flesh—that and nothing less is our task. In Him the whole self was integrated and developed in union

[1] *Lambeth and Reunion*, p. 53.

with God: He was perfect Man just because He was perfect God; for only in God can man attain perfection. What He, the eternal Designer's finished cartoon, revealed as the consummation of our race, has now to be rendered in a mosaic of which all humanity are the constituents. As each of us learns to live in the eternal and to find his fulfilment in the fellowship of the Spirit, there is being accomplished the Second Advent of the Incarnate. That the whole of mankind, living in conscious communion with God and functioning as a single spiritual organism, should reflect nothing but His glory, is the Christian's deliberate end. Remote, quixotic, unattainable as it may appear in view of man's past and present failure, it is, in fact, already being realised where two or three gathered together experience an incarnation of His Spirit and for the time have their doubts answered by the revelation of His power. The process, culminating for a group of Galileans in Pentecost, and repeated fitfully through the ages, has to be reproduced on a world-wide scale. To practise the presence of God that He may become to us not a mere symbol of Sunday observance, but the one abiding Reality of daily life; to share together the adventure and agony of the Cross that we may learn the joy of suffering and be fitted for unity by the self-surrender of love which is our sole self-fulfilment; to discover by the fellowship of common effort and error our need and His sufficiency—these are the conditions upon which we shall receive power. To state our goal and the threefold aspect of our preparation is the first step to an apprehension of our task.

We have the whole in miniature in the story unfolded for us in the New Testament, and as we trace the method by which Jesus trained His followers, we can at least assure ourselves that the venture, however daunting in its magnitude, is not just a piece of crazy idealism. Yet we have so identified religion with

sectional interests, so isolated it from life, and so acquiesced in counsels of expediency or of despair, that we can hardly state our end or study our Master's way without half-consciously debasing them. What, then, do the three aspects of our preparation involve, when they are stripped of cant phrases and cheapened mythology?

The practice of the presence of God does not necessarily mean, at any rate at first, much church-going and formal prayer. There are times when one is almost tempted to wish that all ecclesiastical activities could be suspended, so that men and women might have a chance of discovering that the "most High dwelleth not in temples made with hands," or at least that heaven and earth, the common heritage of us all, are always and everywhere His dwelling-place. One of the greatest obstacles in the path of religion is due to the age-long habit of consecrating special times and places by secularising everything else. All of us who "minister in sacred things" are liable half-unconsciously to do so. Unless I can see that we only build churches in order to realise that every home and shop and factory is a house of God, that we celebrate the Sacraments to become sensitive to the spiritual value of the universe and of its every particular aspect and activity, that we say our prayers and read our Bibles to make the whole of our lives a communion with the Spirit, then almost I could feel that churches and means of grace are defeating their own ends. Let there be no confusion here, for the matter is vital, and it is hard not to believe that over it there exists a fundamental cleavage of Christian opinion. Is there, or is there not, "a radical disparity" [1] between the supernatural and the natural? Are Church and State not merely separable in function, but eternally diverse and mutually exclusive? Are the ordinances of religion the richest activities of

[1] Cf. Lloyd Morgan, *Life, Mind and Spirit*, pp. 299, 300.

common life, or do they belong to another order of reality? Those are the questions upon which there is obvious uncertainty and possibly sharp division. And they, not the trivial problems of sectarianism, raise the true issue of the time.

The simplest form in which the matter can be stated is to ask whether the special tenets of Christianity —the Incarnation, the Sacraments, the Authority of Church or Scriptures—are such as to differ not in degree, but in kind from the rest of human experience. But because it is often urged that the antithesis between kind and degree is misleading, it will be well to be more explicit. To many the belief that Incarnation is totally other than Inspiration, that Jesus differs from the saints not as the circle from the arc, but as a Being of another order, is of the essence of their faith. To others (and I am among them) such contrast would involve a denial of His Manhood and the surrender of the reality of His Incarnation. If this means that Incarnation is Inspiration revealed in perfection, at least that belief is inherent in any doctrine which does not reduce His ministry to a barren because unintelligible theophany. We must, in fact, interpret His divinity on the analogy of our own experience of the divine; He must belong to our species: if deity and divinity are contrasted, then we are tritheists indeed.

Similarly of the Sacraments. Some would seem to maintain that there is an essential difference between the bread and wine consecrated by a Catholic priest and the bread and wine partaken of by a company of Plymouth Brethren, and that this difference does not depend upon the differing traditions, outlook and belief of the recipients, but is effected by a supernatural change in the elements themselves. This involves a clear break between the Sacrament of the Mass and the sacramental character realisable in any "common meal": they belong to dissimilar orders of existence: the latter can never at any time rise

to the level of the former; the Mass is a miracle, a breach of the natural order, not a revelation of nature at its highest, and in the strict sense of the word the common meal (or the handclasp of friends) is not a sacrament. It is this antithesis between the "Sacraments of the Church" and the sacramental principle revealed in every "outward and visible sign" whereby spiritual communion is symbolised, imparted and enhanced, that appears to the scientifically trained to destroy coherent thinking and even to savour of magic —so far, at least, as it implies that ritual and formula can alter the substance [1] of matter. Such separation destroys both the nature and the work of sacraments. We rejoice that special "signs" were chosen and hallowed by Jesus and His Church that through them the universal presence of deity might be established, that we might be trained by particular means of communion to appreciate and discover that, for those who have eyes to see, God is everywhere unveiled, that we might become increasingly sensitive to His constant imparting of Himself to us. We need the particular ordinances to learn from them the universal indwelling and the possibility of an abiding communion. We would sanctify them by every aid of beauty and dignity of worship. We should destroy their meaning for us if we emphasised God's presence in them by denying it elsewhere, or maintained that our union with Him by their means differed essentially from that of prayer.

So too with Church and Scriptures, the objection to a doctrine of infallibility does not rest upon the obvious fact that neither authority can prove its claim, that to the student it is as impossible to accept the inerrancy

[1] If we accept Dr. Temple's suggestion and give to the Scholastic "substance" the meaning of "value," this objection would be met; but the miraculous view of the Sacrament would be abandoned, and a complete change of doctrine be accomplished. Many of us could accept "transvaluation," for whom "transubstantiation" is intolerable (cf. *Christus Veritas*, pp. 247–8).

of Genesis as it is to feel respect for the procedure or verdict of the Council of Ephesus. Whatever we think of the contents of Bible or Creeds, we cannot believe that men manifestly imperfect like the authors of the Pentateuch or the Fathers of Nicea could receive or express an infallible truth; for in the first place the notion that the Spirit reveals Himself in His fulness in spite of the sin of His human recipients contradicts belief in man's co-operation with God, in man's freedom and God's Fatherhood; [1] and in the second these men were dealing with eternal and infinite reality, such as cannot be precisely and finally translated into human speech. However august their authority, however spiritual their experience, however direct their vision, their language can only represent an approximation. If we have here truth embodied in a tale, yet the tale is not the truth, but only its outward and, in all cases save the Person of Jesus, its inadequate expression. Knowledge is an experience of the whole self; its formulation by the mind can never be identical with its reality. To separate the Creeds from all other hypotheses, to erect a barrier between the Canonical books and other literature, is to lapse into overt dualism, and to misunderstand the function and limits of mind and speech.

There is always danger in emphasising alternative opinions and inviting men to choose between this and that: to do so is unjustifiable unless a vital principle is at stake. Here the cleavage involves a fundamental difference in the conception of God's nature and mode of operation, an issue vastly more important than any of the detailed questions that divide us; and we cannot go forward until we know how the Church stands with regard to it. That is my excuse for putting it into concrete and frank utterance. The

[1] If God is such as to over-rule our resistance by force, then "Why did not God stop the War?" becomes unanswerable.

whole possibility of reaching out towards a reconciliation between religion and science, and of working for a coherent and Christian life within the Church, depends upon it. And in such a cause we can only speak the truth as we see it. No one who understands anything of the grandeur of God or the perplexity of the present time will wish to condemn or to denounce. But if he finds himself constrained to accept results which divide him from some at least of his brethren, and if the acceptance of those results seems to him a matter of life and death for the fellowship, he cannot let questions of expediency, or even of regard for the feelings of others, reduce him to silence or to the wrapping up of his convictions in a veil of ambiguous phrases. To be silent is sometimes to betray.

For those then for whom the practice of God's presence is not to be identified with any ecclesiastical conformity save in so far as this symbolises and enriches our ability to realise Him at all times and in all places, the claims made for the Church often seem exaggerated and misleading. For if we are to take the test of fruits seriously, we shall not be able to rely upon outward profession, upon baptism or any external sign, as limiting or as guaranteeing the gift of the Spirit. He is here in these means, as in a multitude of others, here with the manifest actuality that the example of Jesus and Christian experience and usage emphasise; but He is not here only, and everywhere our receiving of Him is conditional upon our power to receive. We are to find Him, as Jesus did, in Nature and the works of man, in all that gives expression to spiritual value, in beauty and truth and goodness, and especially in the love that involves them all.

" Nevermore thou needest seek me; I am with thee everywhere;
Raise the stone, and thou shalt find me; cleave the wood, and I am there." [1]

[1] Van Dyke, *The Toiling of Felix.*

And as we are trained to recognise Him, we shall come to realise that His reign is no "dim far-off divine event," but is here and now amongst us, only waiting for our acceptance of it as fact to be given full expression. We shall see every bit of honest effort as a ministry, a "holy priesthood"; to give a cup of cold water is to administer a sacrament; to till the fields and reap the harvest, to grind and bake and distribute the corn is to share with Him in the giving to us our daily bread; to work for peace on earth and goodwill among men is to be one with His angels; to make a home for His little ones is to realise heaven upon earth. And knowing this, our scorn of human failures, our disgust at human sin will be turned into pity and wonder and shame, pity that we and our like have so misused His gifts, wonder at our impotence and our rebellions, shame that in condemning others we have blinded ourselves to the justice and the long-suffering of God. We shall begin to judge ourselves rather than our brothers, to rejoice in what they are and to believe in what we all might be, to know God and to live eternally, to worship in spirit and in truth :—

> " made wise
> To trace love's faint beginnings in mankind,
> To know even hate is but a mask of love's,
> To see a good in evil, and a hope
> In ill-success; to sympathise, be proud
> Of their half reasons, faint aspirings, dim
> Struggles for truth." [1]

To worship in a world like this is to serve and to suffer. At every stage of our development there is a cross to be borne; at every stage we are tempted to refuse it. We would fain call a halt and see results, and sink back for a little upon the comfort of our thrones. And to do so is to lose our hold of God. There is room and great need for those whose work is contemplation and who in the agony of the Mystic

[1] *Paracelsus*, Pt. V, fin.

Way are met by their Lord; but there is no room for sloth, for ease and security, for the life of the stall-fed ox. "Have you found peace?" says the Salvation Army lassie. "Not peace, my dear, war!" says the wise old saint in reply. And, paradoxical as it sounds, both mean the same. Our peace is the struggle to serve; for in giving we receive, in effort is growth, in activity life, if only our energies are evoked by and directed towards the expression of the Spirit with whom we are learning to be in communion.

And at present the need for energy on the part of Christians is unmistakable and intense. The Spirit is manifestly troubling the waters of the world, and those who can be baptised in them acquire vigour. The scientist with his conviction of the unity of all knowledge, the reformer with his visions of democracy and brotherhood, the industrialist rebelling against the mechanisation of human relationships, the statesman visited by dreams of a world-wide and co-operative society—these have all in their measure plunged into the "bath of regeneration." It is grossly unfair to say that the Church still lies, like the paralysed invalid, on the brink; but it is plain that others have stepped down before her. She has not yet set herself seriously to receive and use the conviction of the scientist or the vision of the reformer, and is only beginning to enter whole-heartedly into the struggles of industry or the aspirations of politics. Each of them offers to her an example which should be an inspiration, an opportunity which, if she is true to her Lord, she might develop to the fulfilment of her end. Plainly the unifying and co-ordination of knowledge are fundamental to an adequate theology; plainly she is organised for brotherhood and has somehow failed to attain it. She cannot acquiesce in the dehumanising of life by allowing masters and men to become mere cogs on the wheels of productive and distributive machinery; she is commissioned to a world-wide adventure, and to

become national or parochial is an apostasy. And there are abundant signs that she is reviving—jerkily, no doubt, as if from the effects of a galvanic battery; fitfully, as with limbs not yet wholly under control. But beneath her rather feverish campaigns and crusades and movements and conferences there is everywhere evidence of intellectual and moral and spiritual renewal. In the past ten years a very large change has come over her thinking; scientific methods, in Britain at least, have triumphed mightily, and the new interpretation of doctrine wins its way month by month. And the growth of fellowship, despite many obstacles, both between denominations and within them, has been not less remarkable. The Quakers have shown us that institutions are not essential—though to many of us they have also shown that institutional religion is of indispensable value; and co-operation in thought and action has demonstrated that the old lines of division are rapidly growing obsolete. We have begun to learn that we must claim all life as our interest, that education and the home, industry and politics need the guidance of a common attention to God and the inspiration of a common devotion. And the call of the world's need for Him has been sounded more clearly than ever before.

It is with this last that our hopes of an apocalyptic future rise. We have seen that for the integration of the individual and the society a clear and satisfying ideal is the requisite condition. The sole ideal is God; the experience of the eternal Spirit is its manifestation, and world-wide effort its expression and the condition of its enrichment. For religion, if not merely a transient emotion, must express itself immediately in thought and action; and action on a worthy scale is the forerunner of worthy thought. So long as the interpretation of theology is a matter of academic debate it is liable to fall into mere rationalism and argument. It becomes a speculative theory about

God, rather than an attempt to expound in intelligible terms a way of life in God; it should be, in the great phrase of Socrates, the midwife of the Spirit. The formative periods of Christian theology have been times of evangelistic and practical activity, when scholars expressed a full personal experience enriched by loving service. Those who run may read: *solvitur ambulando:* "whoso doeth the works shall learn of the doctrine." [1] The truth underlying Pragmatism is just that as we act upon a hypothesis we discover its validity, how much of it is vital, and how much tentative and secondary, and how much unsound or incomplete. Lonely action may lead to obstinacy and the identification of our own views with the whole of truth: action in partnership with others opens up to us new visions of our own limitations, wider worlds of sympathy and of understanding. That is why, quite early in His ministry, Jesus sent out His half-trained disciples to go by two and two into every city and place, and why they were able to "return again with joy." [2] They had tasted of the power and the illumination that come from service.

If the Church responds faithfully to the World-call, catching the inspiration of a cause too vast for her achievement, she will find her vision of God and her interpretation of Him clarified. Faced with so great a draught of fishes, we Anglicans cannot waste time on jealousies or precedents, but inevitably beckon to our partners in the other ship. It is obvious to every honest mind that the Church of England is not the only boat upon the beach, the one ark outside which there is no salvation. Nor on so grand an occasion can we wait to argue about rigging and tackle and the final division of profits. These other boats are seaworthy; and the shoal is in the bay. Let the whole fleet be launched and proceed on an ordered plan to its fishing, with the comradeship that comes from

[1] John vii. 17. [2] Luke x. 17.

sharing in excitement and adventure. We shall soon find out when we get to sea which of us is best equipped and best handled; and some day the shipwright will build a new model that shall combine the excellencies of all the old ones. Probably even then we shall discover that no one vessel is suited to every emergency, that we want the strong and heavy and slow as much as the dapper and the nimble. Some of our gear is antiquated; much of our top-hamper is superfluous. If it hinders the work, we can throw it overboard; if it can be improved, we will do our best to patch it up. The fish won't wait while we argue and criticise. Stop talking! Shake hands! Man the ships, and to sea.

That may be a crude simile, crudely expressed. It reflects something of the urgency of the times, and of the pain with which those who realise it watch the delays and suspicions, the frigid politeness and regard for precedence and precedent of the several captains. Do these men really care for the owner's interests, or only for their own dignity and freedom from risk? Are they so afraid of doing the wrong thing that they dare do nothing at all? We know that they are old and wise and burdened with responsibility. Was John old, or Paul cautious, or Peter afraid of initiative? God's fools,[1] God's mountebanks,[2] God's troubadours,[3] those are His ministers and wonder-workers. And in the mission field there are plenty of them still. It is for the Spirit who manifests Himself in life and life abounding, in liberty and love, that the world waits.

Such criticism must needs be made, but it applies to us all; and so far as it expresses irritation or unkindness, it testifies against the critic. Upon each one of us, whatever our station, if we have heard the call, rests the responsibility for action. Our sphere may be restricted, our power seemingly infinitesimal, but we

[1] 1 Cor. i. 21. [2] 1 Cor. iv. 9.
[3] *Les Jongleurs de Dieu* (St. Francis).

can begin where we are and as we are. Power depends less upon the size of a group than upon its enthusiasm, less upon its outward status than upon its inward unity. It was to a handful of outcasts, of broken men and women without great qualities of wealth or position, culture or influence, that Pentecost was given. Every least labourer in slum or village is called to saintliness, to life in the fellowship of the Kingdom. His comrades will be his converts; the group in club or parlour, chapel or church the Ecclesia; and as they share in the experience of the Spirit, in the thrill of wonder and worship, in the zest of new-found truth, in the joy of work well done, they will be knit into the Body of God. And all around them, in the light of that knowledge, they will discover their brethren and the true meaning and abiding value both of the world and of the Church.

The work of the Creator in the order of Nature, the work of the Inspirer in the common ways of common people, will be illumined by, and will illumine, the work of the Incarnate and the extension of that work in the ordered life of the Christian fellowship. "For all are yours, whether Paul or Apollos or Cephas, or the world or life or death, or things present or things to come; all are yours; and ye are Christ's; and Christ is God's." [1]

And along with fellowship and shared effort in the tasks of the Kingdom will go the necessity to understand and explain. This book is concerned mainly with problems of the mind, and it is only because these must be solved by those whose emotions and activities, whose whole selves are media of the Spirit, that the preceding pages are not an irrelevance. Theology is the attempt to interpret in the form of a reasonable system of thought an experience in which not thought only, but life is involved. The saint is the soundest theologian; but he is not always qualified to express

[1] 1 Cor. iii. 21–3.

what he knows. We shall get a theology as we develop saintliness.

Meanwhile every defect in human action, every heresy in human philosophy implies the inadequacy of our understanding of God. And as we improve our practice we shall discover the imperfections of our theory. Put so, it would seem that the latter must wait upon the former. In fact, since both are the product of the same self, their development proceeds side by side. Thought suggests action, action reacts upon thought: it is the one person who both thinks and works. And in the integration of the Spirit, mind and feelings must be in harmony. The present trouble is that for many of us they are obviously at war. Doctrines formulated in the fourth or the sixteenth century do not always express the experience and outlook of the twentieth. Theology, sacrosanct by right of age and enshrined in honoured but often almost meaningless phrases, is hard to twist into a semblance of vitality. The more cautious preserve scrupulously the old terminology, and use it to cover ideas of which its authors never dreamed. The more progressive throw it aside, often rejecting with it the verities that it once embodied, and always creating an impression of recklessness and presumption. On the one hand, there is the possibility of equivocation and dishonesty; on the other, of exaggeration and sectarianism. The position, for anyone who feels the need of a baptism of the new learning into Christ, is acutely difficult. If he adopts traditional language, his orthodox readers put their own meaning on the phrases, and the scientifically trained shrug their shoulders and pass him by. If he refuses to play for safety, he is greeted with a chorus of abuse and applause as a Modernist, a Pantheist, a Unitarian, dismissed by the faithful as a perverter of the faith, and welcomed by others just because he is not as other Christians are. All of which is bad for everyone concerned. On

the whole those who are sure of their religion, who know that truth is too large to be easily upset and that the Church is not a delicate invalid to be sheltered from the stress and reality of life, will choose the latter course. They will try to say out as plainly as they can what they believe about God and why they believe it, knowing that their words are certainly inadequate and their experience possibly mistaken, but choosing the risk of being denounced rather than of being dishonest, and trusting that their brethren, even if they disapprove and condemn, will give them credit for being, however falteringly and blindly, servants of the same Lord. It is impossible at a time of Reformation to expect uniformity of doctrine or ceremonial; it is highly injudicious to attempt to enforce it. Liberty and mutual trust will promote the growth of agreement, ostracism and repression will only postpone it. It is for the authorities in each denomination to determine what should be the limits of toleration, and, so far as their own communion is concerned, to exclude from it what they decide to be inimical to its welfare. At such a time as this Gamaliel's counsel is wisest unless men speak in vanity or bitterness, insincerely and to deceive. As we come together in worship and service, and deal frankly with our views and learn their littleness and enlarge it by what others can give; as the Spirit integrates us more and more into the fellowship of His body; as we discover that indeed He is not absent or aloof, but manifested everywhere to the eyes that see Him, we shall attain from our several standpoints that unity of the faith and of the knowledge of the Son of God which constitutes the perfect Man. God's reign is in our midst already, in Creation, in Incarnation, in Inspiration, ever the same, though diversely revealed. His reign is also within us where love is and men realise their fellowship in the eternal Spirit.

And alike for the Church of God and for the several

communions that represent it in proclaiming the good news of His Kingdom, the time, despite its difficulties, is full of hope. Through the conflicts and perplexities accompanying the advance of the New Learning, we have been given a larger conception of our heritage and of our opportunity, a richer vision of the supremacy and uniqueness of the spiritual, and a clearer discrimination between what is essential and what is derivative and temporary. In the first phase of the struggle between the new science and the old religion it must often have seemed that the triumph of the new would mean the destruction of the old. Many scientists and many Christians saw the issue so. The conflict is not yet over, though it is no longer regarded as a duel between irreconcilable opponents, but as part of man's manifold effort after fuller life and wider truth. And what has perished has been, on the one hand, the belief that the whole of reality can be described in terms of weight and measurement, and, on the other, a multitude of traditional uses and beliefs incrusted upon the substance of Christianity. From their different standpoints the champions of each cause have moved, and are moving, towards an agreed conviction as to the nature of the Universe; and that conviction is best summed up for them both in the Person of Jesus Christ. If Christians or scientists ask what that Person means for them, they will find a simple answer in the words of the Lord's Prayer. Those who can accept that prayer as the sufficient statement of their outlook and aspiration, and can relate themselves to it in the fulfilment of their every endeavour, have in it the basis of their discipleship and the bond of their union. Looking upward not downward, forward not backward, outward not inward, we can in our several stations "forget the things that are behind" and "press on toward the mark," the dedication of all art and all knowledge and all effort in love to Love, of our whole selves, personal

and corporate, to the living God. And as through failure and suffering and renewal we learn to know " of what Spirit we are," we shall see ever more plainly the outline of His universal purpose, until we dare to echo, and to act in unison upon, the confession—surely the grandest that human lips ever uttered—that " all things work together for good to them that love God." [1]

Before us the light of a great vision is dawning. We have learned to see the eternal and creative Spirit moving onward through a million years of struggle and suffering, adventure and aspiration, working out through the agency of love the development from mere attraction to conscious relationship, from mutual adjustment to voluntary co-operation. We have seen His creatures blindly, falteringly, but with an ever-increasing mastery and knowledge of their end, responding to love's appeal, stumbling onward towards the fuller realisation of the values which give worth and meaning to life, attaining at last the level of communion with the divine. We have seen the goal of creation displayed for us men in the Man Christ Jesus, and a task new and yet the same entrusted to His brethren. Can we not see our own day, our own comrades, in the light of what we have learned? Their myriad pursuits and conflicting opinions, their sin and splendour, their tragedies and triumphs, repeat on a grander scale the story of Creation. Each several unit of them all is haunted by a passion for life, for reality, for God, for the beauty and truth and love which are His epiphany, for Jesus who is His incarnation. Thwarted by ancestral selfishness, distracted by the complexity of their interests, battered by the agony of enduring, often losing the way, often despairing of the end, they press on by a multitude of paths, which for all their diversity shall some day converge, are even now converging. For out of their very failures, by the discipline of error and of pain, the

[1] Rom. viii. 28.

patient energy of God leads them on; and as they are taught to confess for themselves and to recognise in others the common purpose of their striving, they discover one another as friends, and with penitence and pity, in faith and fellowship, by diversity in unity, realise and reveal that already here and now there is one Body and one Spirit.

APPENDIX

BIOCHEMISTRY AND MENTAL PHENOMENA

By

JOSEPH NEEDHAM,

M.A., PH.D.,

Fellow of Gonville and Caius College,
Cambridge

APPENDIX

In his chapter on "Personality and the Group" Dr. Raven has touched on the physico-chemical foundations of mental life and of the attraction and repulsion between individuals. A detailed discussion of this obscure subject, however, he has thought well to place in this appendix, which he has entrusted to me. Its title, which at first sight might seem a curious one, has been chosen for definite reasons. It is Biochemistry, and not the classical Physiology, which is important in this connection, for while the latter might be content to arrange the phenomena of life in provisional concepts of its own devising, the former, committed as it is to exact physico-chemical notions, inevitably relates the affairs of living organisms to the fundamental properties of matter. In this way, the psycho-physical problem emerges specially clearly and with the properties of electrons on the one hand and the phenomena of living things on the other; we are not hampered at the outset by halfway-house entities invented *ad hoc*.

The question before us is whether any real relations between mental and physico-chemical phenomena are possible, and whether any are known. It will be well first to consider whether on general philosophical grounds we should expect to find any such correlations, and next to see if experiment supports theory in bringing forward definite cases of such correspondences.

In the short space which I have at my disposal it will not be possible to support with detailed arguments the affirmations which I propose to make.

In the first place, then, I consider that the scientific method, with its dependence on the logic of induction, its constant employment of the statistical process, its inevitable intellectual analysis of its subject, and its essentially metrical nature, cannot be considered the only way open to man in his longing to move towards the essence of the world. To regard it as the singular approach, or even the principal path to Truth would be to fall into the pit of scientific naturalism out of which we have been so diligently climbing since the Victorian period. It would be to succumb to what Whitehead [40] * calls the "Fallacy of Misplaced Concreteness." We must believe that other kinds of experience give valid accounts of Reality, and that forms of human activity, such as Philosophy, Religion, Aesthetic appreciation and Poetry, produce autonomous interpretations of the nature of the universe. But I am also concerned to affirm that the scientific method takes its place as one of these realms of experience, providing for us a series of answers limited in their essence, but infinite in their scope. In other words, just as the poetic genius can turn to its own uses anything in heaven or earth, so the scientific method of approach can deal with all phenomena, no matter what their obscurity, their commonplaceness or their sanctity. In neither case do we get a full picture of the real, for each manner of envisaging it suffers from inherent discordance and distortions; only a synoptic life can help us towards such a realisation.

The mechanistic theory of life, then, to which I consider science undoubtedly committed, is not a philosophical theory or a metaphysical system like the simple materialism of De la Mettrie [10] and Cabanis,[6] but a scientific hypothesis which works extraordinarily well. The mechanistic conception of living organisms

* Notes to which figures refer will be found at the end of the Appendix.

is necessitated by the fact that science is, above all, a system of measurement. What can be weighed and made quantitative is susceptible of scientific treatment, anything which cannot be so discussed is left on one side as science advances to form one of those discarded conceptions which mark the passage of thought, one of those questions which are not answerable because their terminology is obsolete. In this way did teleology disappear from physical science, and though as yet it still lingers in biology, its summons has come, and it is about to depart. In this way it is that vital forces, entelechies and hormic urges have become meaningless, for no one has ever proposed a method of measuring them, and until that is done these sleeping beauties cannot awake to the full day of scientific hypothesis. To admit the supremacy of mechanism in biology, however, is not to grant it more than scientific rank, and thus we shall find ourselves in agreement with Lotze,[25] who said, "Nowhere is mechanism the essence of the matter; but nowhere does being assume another form of finite existence except through it." Lotze held that mechanism was universal and at the same time secondary, or partial.

Passing then to the question of mental phenomena, the problem is whether biochemistry—that is, the physico-chemical study of life—can ever have anything to say about phenomena usually thought of as non-material. It seems to me that, in its own manner, it will have everything to say. To take an extreme case, it might some day be proved that a deficiency of sulphatide phosphorus in a certain area of the brain was always associated with the capacity for the creation of great poetry. It is needless to say that such a suggestion is quite wild, but it is nevertheless a legitimate extrapolation of facts known already. Now the scientific naturalist of the old school, faced with such a state of affairs, would find himself in a very difficult position, out of which he would only emerge by entirely

denying the validity of any notions of reality supplied by poets. As a matter of fact, by a clear foresight, the advocates of scientific naturalism did make a series of such denials. But to anyone holding a synoptic view, such a correlation presents no great stumbling-blocks. He will feel nothing but pleasure that the poetic faculty in the mind of man has been brought under the domination of the mechanical scheme of things, that realm in which weight and measure are the supreme dictators and in which absolute determinism carries the rôle of chief justice. Yet who will know better than he the limitations of that kingdom, its frontiers and its bounds? The mainsprings of the poet, it is agreed, have been found capable of expression in physico-chemical terms, in the language of the domain of electrons and atoms. Yet the beings who founded that domain and drew up its charter were entities very like the poet in question. In fact, the State which has enveloped this mental phenomenon was produced by the very same thing that produced the poetry. And it is not fantastic to say that the activities of the biochemist could be transmuted into another tongue by the operations of the poetic faculty. A purely mental phenomenon has been found to fit into the physico-chemical universe, but that is certainly not the whole universe, and perhaps not the best part of it. As far as science is concerned, the question of the origin of great poetry would be settled, but before the jury could give its verdict, there would be other witnesses to be called, Art, Philosophy, Religion, Ethics, Music, Mathematics, and last, but not least, the prisoners themselves, the Muses of Helicon, would enter the witness-box. The eventual verdict then to be put forth exists even now in the recesses of speculation; it was hidden from Luther, Huxley, Loyola, but Desiderius Erasmus knew it and Thomas Browne was not obscurely cognisant of it.

Thus we may expect that in the future biochemical experimentation will reveal the whole of the cerebral mechanism associated with mental states. As far as science is concerned, these states must remain epiphenomena, side-issues, shadows, and their conative aspects illusions, since behaviour will be interpreted physico-chemically. But then, remembering that the whole universe of science is itself a great abstract construction produced by the activity of the mind, and that its results are far from having any metaphysical truth, we shall rest content with them as far as they go and, correcting them with the wisdom gained in other realms of experience, we shall set them in their proper place in the mosaic of our world. In this way the psycho-physical problem ceases to have much meaning. Both kinds of description being, by definition, partial, distorted and creatures of the same creator, to try to employ both at the same time is to imitate Joseph Glanvill's Aristotelian Antagonist, who objected in 1668 to wearing spectacles on the ground that with two pairs superimposed you saw worse than with one.[14]

I shall now indicate the observations and researches which throw light on the physico-chemical aspects of mental phenomena, especially those connected with contact between individuals. It will not be necessary to linger over the dreams and visions induced by the physical agency of drugs, for we are more concerned with action in the inverse sense, namely, the biochemical effects of mental activity. But it is curious that no one has yet attempted to study with good controls the effect of chemical configuration upon the kind of vision produced in this way.

In considering the influence of one individual upon another, in the biochemical sense, we shall not be able to proceed far until we have at any rate looked in the face the problem of individuality itself. It is only recently that biochemical data have appeared that

indicate the manner in which this problem may one day be solved. The older text-book writers held out no hopes in this direction, and in a quite recent book Matthews [26] pointed out that it was very strange that the nucleic acids, the constituents of the cell-nuclei and the presumable "carriers" of the hereditary constitution of individuals, had all turned out to be chemically the same. The nucleic acids are, however, in the body united to protein molecules, and this fact gives us perhaps the key of the matter. The class of compounds known as the proteins is indissolubly associated with life and, together with the fats and the sugars, makes up invariably the material foundation of living organisms. Our knowledge of the constitution of the protein molecule, well reviewed recently by Plimmer,[30] Cohn,[8] and Jordan Lloyd,[20] leads to the view that the number of possible varieties in it may be almost infinite.

The protein molecule is made up of a very large number of smaller units, the amino-acids, and each of these can exist in three modifications, differently constructed in space out of the same number of atoms, and therefore rotating polarised light in different directions. The known amino-acids are in number about twenty, and, existing as they do in three modifications, the number of ways in which they could be combined together to form single protein molecules is immensely large, for at least three hundred amino-acid units are required to build up one protein molecule. The molecule of serum albumen may have at least 1000 million stereoisomers. In this way we can foresee a kind of biochemical individuality, which well might be the basis, as some would say, or the expression, as I should prefer to put it, of mental individuality.

Data concerning the individuation of proteins are, indeed, already to hand. The monumental work of Reichert and Brown [32] and of Reichert [31] succeeded

in showing that the hæmoglobins (the protein blood-pigments) of the animal kingdom and the starches of the plant kingdom are quite distinct, according to the species from which they are derived. This was a step towards demonstrating chemical differences between individuals. Then the phenomenon of racemisation of protein led to some suggestive observations. Dakin and Dudley [9] discovered that by standing in alkali for three weeks proteins would suffer changes in their optical properties, so that subsequent hydrolysis in showing which amino-acids had been altered would show which ones had been on the exterior of the molecule, and thus give a glimpse of its spatial structure. Dudley and Woodman,[11] following this up, found that the protein of the milk of the sheep was quite different from that of the cow. It has since been found that the blood-proteins differ as between the sexes.

The whole tendency of biochemistry hitherto has been to abolish the influence of the individual by taking in any given estimation as many single animals as possible, and thus getting the average figure. In the future a tremendous amount of work will have to be devoted to ascertaining the magnitude and extent of individual differences and their correlation with characteristics. Whether the approach to the problem of biochemical individuation will lie along the lines I have suggested, is not sure, but that it will come there can be no doubt.

When some definite knowledge on this point has been achieved, the time will be ripe for investigating the possible physical means by which individuals can affect one another. It will then be well to recall certain facts known to-day, but as yet isolated. The extreme delicacy of human perceptions of odour, for instance, is not at present generally recognised. Zwaardemaker,[41] who has devoted much time to this aspect of biochemistry, states that when only a few molecules of some odoriferous substances, such as the

artificial musks, the nitrobenzenes, are present in a whole room, the characteristic smell is yet perceptible. There is therefore every likelihood that other substances, produced perhaps in the course of metabolism, may, though odourless and not perceived by any of the special senses, exert an influence of one organism upon another. The exceedingly minute is now a familiar matter to the physiologist. The infinitesimal amount of vitamine required to maintain a living body in working order,[13] the faint trace of iron necessary for biological oxidations,[16] the almost infinitely small quantity of copper capable of killing plant cells placed in water containing it (one in seventy-seven millions),[27] and the incredible dilution to which certain toxic substances may be subjected while retaining their power : [39] all these instances go to induce an attitude of being surprised at nothing. They make it perfectly possible, and indeed almost likely, that the influences between individuals which Dr. Raven speaks of in the earlier chapters of this book possess what some writers would call a physical correlate. The word correlate, however, I do not like, for it assumes that both our mental and physical terminologies are equally real, whereas I consider that both are highly abstract and partial pictures of the entity itself. This question need not be opened again, however.

Such exceedingly small amounts of chemical substance acting in the individual body have been already much investigated, and even the purest of metaphysicians can hardly have avoided hearing of the name " hormone." I need not dilate upon the extraordinarily profound effects which the glands of internal secretion exert upon the mind and the body ; they are already sufficiently well known. The administration of the active principle of the thyroid gland, for instance, can transform certain types of idiot into normal people in a very few days, and the association between adrenalin and fear is as well marked as anything in

physiology. The work of Cannon,[7] though it has been much criticised (see Stewart [35]), has shown that the emotion of fear is associated with liberation of adrenalin from the suprarenal gland, a consequent rise in blood-sugar, presumably—if for a debased moment we may allow ourselves to be teleological—to provide for a better functioning of the muscles in the expected fight. The phenomenon of emotional glycosuria is closely connected with this.

In the discussion of such mechanisms the James–Lange [17, 18] theory of the emotions is usually introduced, according to which "sorrow becomes our consciousness of the fact that we are crying," and we feel afraid because our adrenal glands are secreting an excess of adrenalin. Sherrington,[34] reporting experiments involving spinal and vagal transections in dogs, considers that they tended to disprove the James–Lange theory; but this is doubtful.

This hypothesis, which I should immediately reject if it claimed to have any philosophical value, I can nevertheless admit as being reasonable within the closed circle and limited outlook of the scientific or mechanistic conception of life. I may find it useful to think in physiology AS IF it were true. Joad,[19] in criticising it from a philosophical standpoint, is wide of the mark. He points out that fear imperceptibly shades into all sorts of other emotions, and "since the fear gland will not fill the bill, we have to invoke the excretions of some other gland." Now this is not in the least necessary, for apart from the considerable number of modifications which the adrenalin molecule itself may present, the number of possible combinations with other hormones and other substances is innumerable—or rather, let us hope for the sake of our biochemical successors, almost innumerable. The constitution of what Lloyd Morgan [23] speaks of as the "biochemical brew" is really susceptible of a very great number of modifications, and the physico-

chemical expression of the emotions may originate in varying percentage relationships of the hormones of the body.

But it would be quite speculative and fanciful to pursue this subject further; we must keep close to the facts. Let there simply be queried, as Francis Bacon would have said, whether there may not be hormones acting outside the body as well as the well-known ones acting within it, and let us remember that air is no inconvenient medium for the transmission of discrete molecules, altogether apart from radiations, of the possibilities of which I have not spoken. It may be noted that to stick close to the facts will be to treat with great caution the work of writers such as Berman,[4] who, with their hormonic personalities and pluriglandular horoscopes of Julius Caesar and Madame de Maintenon, do little service to sound physiology.

The investigation of lunacy is another field as yet little touched by the chemist, but offering him vast possibilities. Pathology has often afforded the student of normal living processes valuable illuminations, and lunacy will in the future be a good case of this. At the same time there are numerous difficulties attending such work, the chief one being that there are very few diseases entirely mental; most of them have some obvious accompanying physical defect. Thus persons suffering from melancholia are usually very constipated, and this explains the presence of indican in their urine, which at one time was considered to have some relation to their mental state.[36] It is much more likely, as Borden [5] showed, to be due to simple auto-intoxication. Then there was the work of Halliburton [15] on the presence of abnormal amounts of choline in the cerebro-spinal fluid of lunatics. This substance, which would be expected to be produced by a breakdown of brain-lecithin, seemed to occur in several abnormal mental conditions. It is still not certain, however, whether the tests used were really reliable.

A similar chemical abnormality was reported by Weinberg,[38] who found dementia praecox and melancholia to be characterised by disturbances in the creatinine coefficient. Subsequent investigations [28] altogether failed to confirm this finding, and it seemed as if disturbances of creatinine metabolism, when they occurred, could always be related to disturbances of muscular tone, such as are found in *Catatonia* and *Flexibilitas cerea.*

Much more definite relationships between chemical abnormalities and mental diseases came to light through the work of Waldemar Koch.[21] His principal conclusion, the result of a statistical study of brain material requiring extraordinarily tedious and difficult methods, was that in the brains of persons suffering from dementia praecox the amount and distribution of the phosphorus showed no marked change, but the neutral sulphur was greatly diminished and the inorganic and protein sulphur was slightly high. Pighini,[29] it is interesting to note, observed in this disease an increase in the neutral sulphur of the urine. In the case of general paralysis, on the other hand, there was no such diminution of the neutral sulphur, and indeed practically no difference at all as against normal brains, except that a tendency showed itself for the lipoid phosphorus to be decreased.

Feigl [12] made some similar observations on the blood in asylum patients, and discovered disturbances of lipoid phosphorus, but he was mainly interested in general paralysis. For our purpose, on the contrary, the most important data are those obtained where the physical changes are least in extent. It would be wrong to disguise the fact that even the excellent work of Koch rests only on a comparatively limited number of analyses, and that until statistical studies on really varied material are undertaken we shall not be able to lay great weight on them. At the same time, they are at present the most suggestive observations we have, and it is not rash to expect that a

great variety of others like them will in the future be made.

The question of the physical results of mental activity has so far not been much worked at. That a close correlation existed between mental and cerebral processes was realised well by the physiologists of the early nineteenth century, among whom was born the proverbial phrase "Ohne phosphor keine Gedanke," generally ascribed to Moleschott. Lavoisier [22] in 1789 had indeed said: "On peut connaître, par example, à combien de livres en poids répondent les efforts d'un homme qui récite un discours, d'un musicien qui joue un instrument. On pourrait même évaluer ce qu'il y a de méchanique dans le travail du philosophe qui réflechit, de l'homme de lettres qui écrit, du musicien qui compose." But it was necessary to wait for the era of exact calorimetrical researches before definite information became available. The early work of Atwater and Benedict seemed to indicate that mental work resulted in no extra consumption of energy. Benedict in 1910 [3] said: "It occurred to me that it might be desirable to study the metabolism of students during the mid-year examination period, for if there is any time in which a college student performs mental work, it is then. So it was arranged for students to take their examinations in the respiration chamber." The results of these experiments were altogether negative, in other words, there was no difference between periods of intense mental activity and quiescent periods, as far as estimations of heat, oxygen and carbon dioxide could show. It was possible, however, to hold that with improved and more delicate methods the doubtless exceedingly slight effect of mental exercise on metabolism would become measurable. In 1914 Becker and Olsen [1] published a great deal of work on the subject, which they went into very thoroughly. Their conclusion was that "during the getting by heart of meaningless syllables an increase

in the organic elimination of carbon dioxide occurred, the main part of which was due to the psycho-physiological processes upon which the association work depends. The magnitude of this metabolic increase oscillates parallel with the subjectively estimated amount of work performed. The increase will gradually diminish in amount according as the subject acquires greater practice in the work in question. The respiration of the subject resting, but awake, has a wavy course, but on entrance into sleep the respiratory level is lowered and takes on a constant level value. The cause of the oscillations during waking time must partly be sought in changing states of consciousness."

Very recently Liebermann [42] has reopened the question where Becker and Olsen left it, while Suk [43] has succeeded in demonstrating a very definite effect of prolonged severe mental work upon the blood-sugar level.

Not a few biochemists, impressed by the similarity between mental processes and some physical ones, have suggested physico-chemical interpretations of such phenomena as those of memory. Brailsford Robertson,[33] for instance, has made a great deal of the parallelism between the process of volition and an autocatalytic reaction, *i.e.* a chemical change which moves faster as it goes on, since its own products accelerate it. He has also compared the fading of memory-traces with the curves yielded by certain colloidal systems, such as the rate of extraction of protamine from dried spermatozoa by hydrochloric acid. Matthews [26] has also speculated along these lines. In discussing the behaviour of quick-drying oils, he says: "We do not generally speak of the long latent period of the oxidation as a period of teaching, but we call it a period of inductance; and we do not say that the oil is learning to oxidise itself and doing it better and better, but we say that it shows the phenomena of autocatalysis; nor do we say

that it forgets again in the dark, but that the intermediary autocatalytic agent has disappeared. But when living organisms show the same kind of phenomena, we speak of teaching, latent periods, stupidity, good and bad memories." This is, indeed, an excellent instance of the way in which special language is created to deal with the phenomena of life, without any particular reason except lack of courage in the application of the scientific method.

At the same time these suggestions do not rest upon a very secure experimental basis, and what is more, they are conceptions brought in from outside, as it were, to explain mental phenomena mechanistically. It is more interesting when a certain mental state or activity is directly described in physico-chemical terms, rather than by means of a physico-chemical analogy. These suggestions in a way resemble the well-known "simulacra vitæ," of which more examples seem to be discovered every day. Combinations of oil drops with acids may be made to exhibit most of the phenomena shown by the protozoa, the mechanical beetle of Lotka [24] never falls off the table, the Robot chess-player of Torres y Quevedo [37] is rarely in error, and as for the automatic telephone operator,[2] it is difficult to see how anything more perfect could be designed as a substitute for human intelligence. But the fact that these imitations of life function so well does not prove that their mechanisms are the same as those of the living brain, it only suggests that, and therefore physico-chemical hypotheses derived from actual psychological data are the more interesting.

In what has been said within the limits of this appendix, an attempt has been made to delineate what is at present known about the physico-chemical aspects of minds and the relations between them. The bibliographical part is by no means complete, but I did not think it necessary that it should be, for

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ideas are ultimately more important than facts, though they derive from them their authority and their life. Many of the papers I have quoted contain further extensive lists of references, and I do not think I have omitted any point of real importance.

It is, I think, unwise to suppose that the forward march of the mechanistic conception of life can be arrested even at the confines of the mind. All the warning notices which have been raised in the past exhorting the biochemist not to trespass have gone down before the flood, and I do not see any chance of new ones being more secure. We must in the future expect that an ever-increasing number of mental phenomena will receive satisfactory treatment in physico-chemical terms, but there is nothing at all for the philosopher or the theologian to regret in this. To be a mechanist in biology is an absolutely different matter from being a realist in metaphysics or that very out-of-date person, a scientific naturalist. Mechanism in biology, it seems to me, is perfectly compatible with any philosophical standpoint, from that of Plotinus or Plato to that of Lucretius or Democritus. For it is a scientific attitude, a scientific concept, and the attitudes and concepts of science are not the only ones which we adopt as men. The philosopher and the poet have other attitudes, and in our more macrocosmical imaginations they also must be taken into account. Mechanism, the determinism of science, is indeed universal, but it is partial too. It has proved most convenient to express the infinite variety of our sense-perceptions and the relations between them in the terms of a self and an external world. It is exclusively for the latter that we built up the scientific method. My self is something in the nature of a set of reference frames, a co-ordinate reference frame. Since co-ordinate reference frames have no boundaries, they can interpenetrate each other, and so, as Lotka says, " the overlapping of egos in fields common to

them, their essential unity with one another and the universe, ceases to appear as a strange thought entertained by peculiarly minded people, and becomes an obvious truth." Mental relations between individuals, then, if regarded through the slightly distorted spectacles of the mechanistic, the scientific, method, will more and more become subjects for the biochemical worker, and it has been my object here to indicate what has already been done in this direction.

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